DOCUMENT RESUME

ED 189 370 CE 025 850

TITLE	Policy Choices in Vocational Education [and] Technical Appendix.
INSTITUTION	Institute for the Future, Menlo Park, Calif.
SPONS AGENCY	Ohio State Univ., Columbus. National Center for Research in Vocational Education.
REPORT NO	R-48A; R-48B
PUB DATE	Dec 79
NOTE	215p.
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Educational Change; *Educational Policy; *Educational Trends; Enrollment Trends; *Futures (of Society); Long Range Planning; Population Trends; Social Indicators; *Trend Analysis; *Vocational Education

ABSTRACT

This report examines the impact of changes in the vocational education environment that are likely to be important to policymakers over the next fifteen years. It contains forecasts of a number of trends that will be of significance to vocational educators, an analysis of the policy implications of those trends in the education environments, and an assessment of how vulnerable policy decisions might be to further changes. The report is divided into three parts. Part 1 describes likely changes in the external environment that will be important influences on vocational education. Areas discussed include demography, the labor force, the economy, societal expectations, and education. Part 2 focuses on the implications of these environmental changes on vocational education and on the policy changes planners in vocational education will face. Part 3 analyzes the likely impact on planning of alternate environmental outcomes. A technical appendix contains actual trend forecasts and a detailed listing of assumptions. (LRA)

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ED189370

POLICY CHOICES IN VOCATIONAL EDUCATION

Prepared for

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December 1979

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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INTRODUCTION

This report examines the impact of changes in the vocational education environment that are likely to be important to policymakers over the next 15 years. It contains forecasts of a number of trends that will be of significance to vocational educators, an analysis of the policy implications of those trends in the education environments, and an assessment of how vulnerable policy decisions might be to further changes.

The report is divided into three parts. Part I describes in some detail likely changes in the external environment that will be important influences on vocational education. Part II focuses on the implications of these environmental changes on vocational education and on the policy changes planners in vocational education will face. Part III analyzes the likely impact on planning of alternate environmental outcomes. A separate technical appendix contains actual trend forecasts and a detailed listing of assumptions.

PART I

THE VOCATIONAL EDUCATION ENVIRONMENT, 1970-1995

This part describes a consistent set of most likely forecasts for key external environmental variables. While they cannot be exact predictions of what actually will be, these forecasts do represent a set of outcomes that have a relatively high degree of likelihood. From this perspective, they are meant to provide an aid to planners who are thinking through the likely impact of changes in external factors on vocational education. The variables described were selected as being the most important in influencing the course of vocational education over the period to 1995. There are five separate sections: demography, the labor force, the economy, societal expectations, and education.

DEMOGRAPHY

The dominant characteristic of demographic change in the United States continues to be the maturing of the abnormally large population cohort born between the years 1945 and 1963. As the members of this group reach working age during the 1980s, they will have a major impact on the workplace and the composition of households. At the same time, the school system that expanded to accommodate them will be receiving an absolutely smaller cohort.

POPULATION

Birth rates were dramatically high from 1945 through 1963. The fertility rate, which had been declining slowly for a century, had reached an historical low during the years of the Great Depression. From 1930 through 1940, total fertility rates (annual births expressed in terms of the implied completed fertility of 1,000 women) averaged 2.3.* During the five years of war that followed, fertility rates rose slowly to 2.5. In the immediate postwar years, the rate rose rapidly--going from 2.5 in 1945 to a peak of 3.7 in 1957. It then leveled off until the early-1960s, when the rate began a sharp decline from 3.4 in 1963 to a low of 1.8 in 1975. The result was the creation of a large population bulge that will remain a dominant force in American life as it matures (Figure 1).

Between 1945 and 1970, the U.S. population grew at an annual rate of 1.52 percent. In contrast, the annual rate of population growth from 1970 through 1977 was 0.82 percent. The rate of increase between 1977 and 1995 should be of the same order, averaging just over 0.8 percent a year.** This projection assumes that future fertility rates vary between 1.8 and 2.0 between 1980 and 1995 (remaining below the long-term replacement rate of 2.1 throughout the period).

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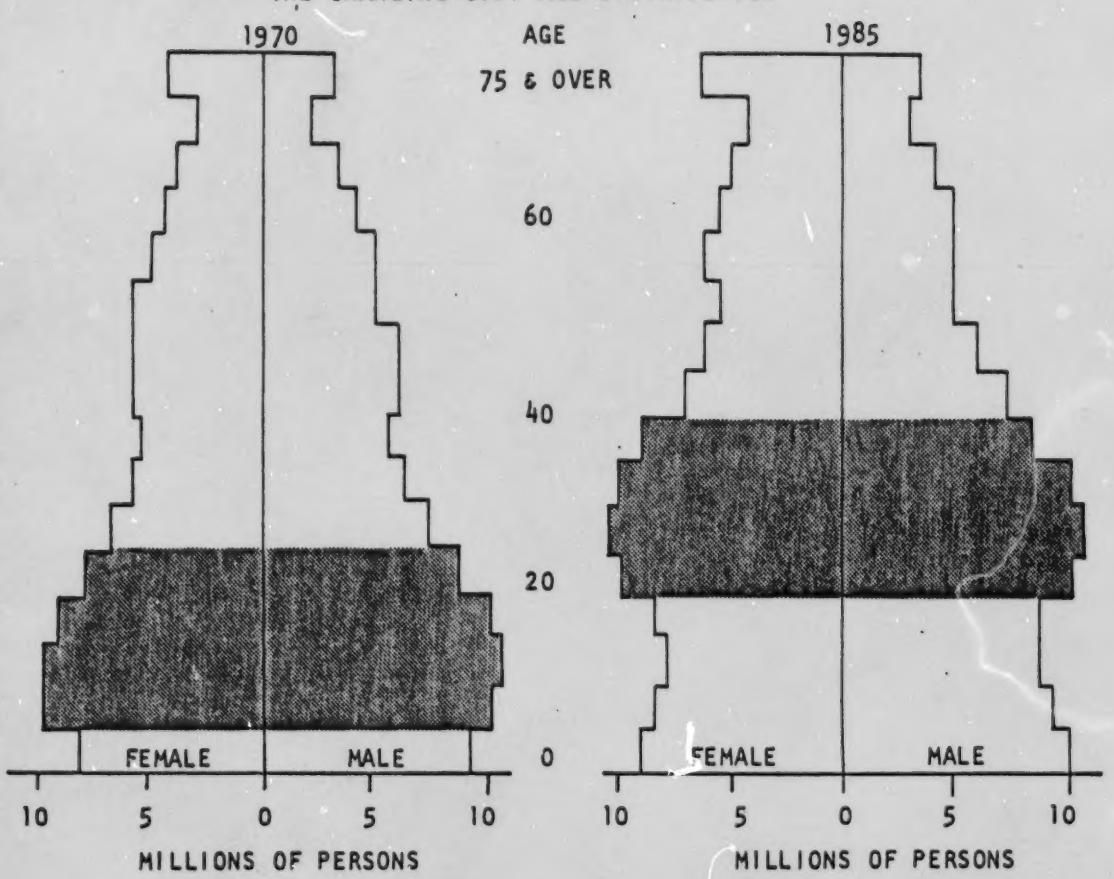
*Bureau of the Census *Current Population Reports* (hereafter CPR), P-25, #802.

**For a description of sources and methods used in calculating population figures, detailed historical series, and projections, see Appendix A. Where no footnote is appended to a table in the text, the numbers are directly derived from the tables in the Appendexes. A footnote appended to a table refers to the source of historical data. Throughout this report, trends are all based on Institute projections.

FIGURE 1

THE CHANGING U.S. AGE DISTRIBUTION



Indicates the baby-boom group.

TABLE 1

U.S. POPULATION, 1970-1995

	Millions	Annual Percent Change Over Period
1970	210.2	1.08
1975	219.2	0.84
1977	222.6	0.77
1980	229.1	0.96
1985	240.5	0.98
1990	252.2	0.95
1995	260.2	0.63

Within the overall growth rate of 0.8 percent, though, there will be some variations. The rate of increase will go from 0.77 percent in the mid-1970s to almost 1 percent in the mid-1980s, as the number of women of childbearing age increases. Then the rate will gradually fall to about 0.6 percent in the early 1990s in response to the declining number of women entering childbearing age.

AGE DISTRIBUTION

The aging of the baby-boom group will have a large impact on the relative size of future population age groups. Table 2 shows that under the population growth rate observed, there already has been a fall in the relative size of the young school age cohort (ages 15 and under); that

TABLE 2

AGE DISTRIBUTION OF POPULATION, 1970-1995

(Percent in Each Age Group)

Age	1970	1977	1985	1995
15 and under	30.2	25.7	23.9	24.0
16-24	15.7	16.9	14.8	12.1
25-34	12.6	15.6	17.3	15.4
35-44	11.4	10.9	13.5	16.0
45-64	20.4	20.1	18.9	20.2
65 and over	9.7	10.8	11.6	12.3

there will be a large fall in the relative size of the labor force entry cohort (ages 16-24) between 1977 and 1995; and that there will be some rise in the relative size of the young adult cohort (ages 25-44) and of those 65 and over. The most critical change will probably be that of the fall in the relative size of the 16- to 24-year-old age group, which accounts for a good portion of college students, armed forces volunteers, entry-level workers, and persons forming new households.

Table 3 shows in more detail the change in age distribution of the younger age groups. The rapid decline in birth rates during the 1960s and early 1970s clearly affects each successive age group over time: children 13 and younger in the late 1970s, the teenage groups in the mid-1980s, and young adults in the late 1980s and early 1990s. It is important to note, though, that the increase in the proportion of very young children in the mid-1980s will begin to affect the teenage population in the 1990s. This is the impact of the "echo" boom. The large number of females born during the 1950s will be reaching prime childbearing age during the mid- and late 1980s. Even with fertility rates averaging well below long-term replacement rates, the number of children born will be relatively high.

TABLE 3

AGE DISTRIBUTION OF YOUTH POPULATION, 1970-1995

(Percent in Each Age Group of Total Population)

Age	1970	1977	1985	1990	1995
0-5	10.3	8.6	9.6	9.6	8.6
6-13	16.0	13.3	11.2	12.0	12.4
14-15	3.9	3.8	3.1	2.6	2.9
16-17	3.8	3.9	3.0	2.6	2.8
18-19	3.6	3.9	3.1	2.9	2.6
20-21	3.4	3.8	3.4	2.9	2.5
22-24	4.9	5.4	5.4	4.4	4.1
25-29	6.8	8.4	9.0	8.4	7.2

Indicates a fall of 0.4 percentage points or more from previous periods.

MINORITY POPULATION

The percentage of population that is defined as minority (black and other races--mostly Asian) will increase from 12.9 percent of the total population in 1970 to 16.5 percent in 1995 (Table 4).

TABLE 4

MINORITY POPULATION, 1970-1995

(Percent Distribution by Year)

	White	Black	Other
1970	87.1	11.7	1.2
1977	86.0	12.3	1.7
1995	83.5	13.6	2.9

Since the minority populations tend to be younger on average and to have higher fertility rates, the minority share is even higher among the younger age cohorts. For example, Table 5 focuses on the population cohort aged 16 to 24. The minority share of this cohort will rise from 13.5 percent in 1970 to 20.1 percent in 1995.

TABLE 5

MINORITY POPULATION AGED 16-24, 1970-1995

(Percent Distribution by Year)

	White	Black	Other
1970	86.5	12.3	1.2
1977	84.7	13.6	1.7
1995	79.9	16.2	3.9

These estimates essentially ignore people of Hispanic background, who make up an increasing proportion of the population and who share a cultural and linguistic heritage different from the white majority. If Hispanics were treated as a separate group, the minority population would increase from 18.6 percent in 1977 to 22.1 percent in 1995 (Table 6).

TABLE 6

MINORITY POPULATION INCLUDING HISPANICS, 1977-1995

(Percent Distribution by Year)

	White	Black	Hispanic	Other
1977	81.4	11.8	5.1	1.7
1995	77.9	13.0	6.2	2.9

Source: CPR, P-20, No.329; P-25, No.704. Assumptions are that 90 percent of persons identified as Hispanic are from non-European backgrounds and that 10 percent (primarily from the Caribbean) are counted as blacks.

It should be noted that our population estimates, which are based on census tabulation and official immigration figures, surely miss a large portion of illegal aliens resident in the country, a significant number of whom are of Hispanic descent. Assuming that there are currently seven million illegal aliens in the country now and that an additional five million will enter during the 1980s, the minority population (including Hispanics) will rise from around 21 percent to 26 percent within the next decade. By the early 1990s, minorities will account for more than 30 percent of the population in the entry-level age groups (16 to 24 years old).

HOUSEHOLD/FAMILY CHARACTERISTICS

The maturing of the baby-boom group has coincided with some big changes in household formation and family living arrangements. The institution of marriage has been shaken by change. Since 1960 the percentage of young women who have postponed marriage has risen dramatically, as Table 7 shows. The postponement of marriage among young women does not seem to have had much of an effect on women over 30 since their never-married rates have risen by a relatively small amount. Another significant factor is the divorce rate, which has shot upward since 1960, especially among the young (Table 8). The increasing instability of marriage and the growing number of children born outside of marriage has deeply affected child-rearing arrangements, with a substantially larger portion of children

under 18 living with a single parent. In 1960 about one child in twelve lived with a single parent; in 1978 the number had risen to almost one in five.* In sum, we have seen a rise in the percentage of young singles and other non-family living arrangements and a fall in the share of traditional households made up of a married couple with children (Table 9).

TABLE 7

WOMEN NEVER MARRIED, 1960-1978

(Percent of All Women in Age Cohort)

Age	1960	1970	1978
18	75.6	82.0	86.4
19	59.7	68.8	76.2
20-24	28.4	35.8	47.6
25-29	10.5	10.5	18.0
30-34	6.9	6.2	8.4

Source: CPR, P-20, No. 338.

TABLE 8

DIVORCED PERSONS PER 1000 MARRIED PERSONS

	1960	1970	1978
All	35	47	90
White	33	44	83
Black	62	83	194
Under 30	23	38	91
30-44	33	47	108

Source: CPR, P-20, No. 338.

*CPR Studies, P-23, No. 84.

TABLE 9

HOUSEHOLD LIVING ARRANGEMENTS, 1960-1990

(Percent of All Households)

	1960	1970	1978	1990
Nonfamily	14.7	18.8	25.1	26.0
Single	13.1	17.1	22.0	20.5
Other	1.6	1.7	3.1	5.5
Unmarried couple	-	0.8	1.5	2.5
Family	85.3	81.2	74.7	74.0
Married couple, no children	30.3	30.3	29.9	26.5
Married couple, with children	41.4	40.3	32.4	34.0
One parent, with children	4.4	5.0	7.3	9.0
Other related individuals	6.4	5.6	5.3	4.5

Source: CPR, P-20, No. 340.

The changes affecting the family and household living arrangements are likely to ease up by the late 1980s as the baby-boom cohort joins the over-30 group. The percentage of all households that are single-person should fall after a two-decade increase (though nonfamily living arrangements will continue to rise, especially among young people). This will reflect the fact that those over 30 will still have a preference for marriage and, though the divorce rate will remain high, remarriage rates will be high as well. With many young couples who had postponed having children through their 20s and early 30s having at least one baby, the percentage of married couples without children will drop. Finally, the percentage of single-parent households with children will continue to rise, though at a slower pace since an increasing share of parents will marry and have children only after an extensive period of living together, which tends to lower the chance of divorce.

The increase in the number of single parents, the smaller number of children per family, the postponement of childbearing until after a career has been established, and the sharp rise in the cost of living have all acted to increase the percentage of children whose mothers are in the labor force. Table 10 shows the increase since 1970 in the working status

of mothers of all children and of those under 6. In both cases, the rise is dramatic and will probably continue to increase, though at a slow pace, through the 1980s. By 1990 about 58 percent of all children will have a mother in the labor force.

TABLE 10

CHILDREN WITH MOTHER IN LABOR FORCE, 1970-78

(Percent)

	1970	1978
All children under 18	38.8	49.8
Children under 6	28.5	40.5

Source: BLS, "Marital and Family Characteristics of Workers, 1970 to 1978," *Special Labor Force Report 219.*

THE LABOR FORCE

Two major factors will influence the labor force between now and 1995: the changing composition of the population and shifting participation rates. As the now mature baby-boom group (those born between 1945 and 1963) is fully absorbed into the labor market, the number of new entrants will decline markedly. Table 11 shows the large growth in the number of people between the ages of 35 and 54 and a sizable decline in those aged 16 to 24.

TABLE 11

POPULATION DISTRIBUTION BY AGE

	Population in Millions		Annual Average Percent Change	Percent Share	
Age	1977	1995	1977-1995	1977	1990
16-24	37.7	31.4	-1.0	26.7	19.0
25-34	34.6	40.0	+0.8	24.5	24.1
35-54	48.2	73.1	+2.3	34.0	44.1
55-64	20.9	21.2	+0.1	14.8	12.8
Total	141.4	165.7	+0.9	100.0	100.0

Source: CPR, P-25.

We can expect a sharp decline in the number of young workers. By 1990 the total number of labor force entrants in the 16- to 24-year-old age group will fall by 14 percent. There will be about a half million fewer labor force entrants from this age group annually at the end of the

1980s. Table 12 shows the percentage change in the number of new entrants into the *full-time* labor force in two key age groups--the 16- to 19-year-old group and the 20- to 24-year-old group. The decline in the number of 16- to 19-year-olds will be evident by 1985; the decline in 20- to 24-year-olds will be most dramatic in the late 1980s.

TABLE 12

YOUNG ENTRANTS TO THE FULL-TIME LABOR FORCE

(Annual Average
Percent Change)

Age Group	1977-1985	1986-1990
16-19	-2.8	-0.6
20-24	+1.6	-2.4
Total:	-1.0	-1.5

Source: CPR, P-20, No. 314, and P-25, No. 704; and BLS *Special Labor Force Report*, No. 200.

MORE FEMALE ENTRANTS

Participation rates, especially among women, have been rapidly increasing for over a decade and will probably continue to do so in the 1980s. In recent years, many women have taken jobs to pursue a career, maintain family living standards threatened by inflation, or support themselves and their children independently of a male breadwinner. These rates should continue to increase through the 1980s and 1990s, though female participation rates will not catch up to the male rates during this period (Table 13).

Despite growing equality of education and employment opportunities, smaller families, and an increased sense of sharing familial responsibilities, substantial difference between male and female rates persists

TABLE 13

LABOR FORCE PARTICIPATION RATES

(Participation as a Percent of All Persons over 16)

	Male	Female
1965	80.7	39.3
1970	78.3	43.3
1975	77.8	46.3
1977	78.0	48.7
1980	78.3	50.2
1985	78.9	52.7
1990	79.2	55.1
1995	79.2	57.5

for several reasons. Women with very young children still participate at a rate below average, and the number of babies born in the late 1980s (due to the large number of women of child-bearing age) will be relatively high. Further, the participation rate of all people over 65 is low, and in 1995 6.7 million more women than men are expected to be in that age group. Only 1 in 12 women over 65 is likely to be in the labor force--hence, lower overall female participation rates. Still, the increase in the number of women working will be substantial, as their overall participation rate rises from 62.4 percent of the male rate in 1977 to 72.6 percent in 1995. Over the same period, their share of the total labor force will jump from 40 percent to 44 percent.

THE OVERALL IMPACT

The rise in overall participation rates will not fully offset the impact of the population change, so that the rate of increase in the total size of the labor force will fall throughout the 1980s (see Table 14). Considering the slowdown in numbers of young entrants, we estimate that on average there will be three-quarters of a million fewer persons added to

the labor force each year during the 1980s. Viewed another way, annual employment growth will be half of what it has been in the past two decades.

TABLE 14

CIVILIAN LABOR FORCE

	Labor Force (in millions)		Rate of Increase (annual average)
1970	86.1	1971-75	2.3
1975	96.4	1976-80	2.3
1980	108.0	1981-85	1.6
1985	117.0	1986-90	1.3
1990	124.6	1991-95	1.1
1995	131.7		

MINORITIES

The sharp rise in the percentage of minority labor force entrants will be a development of major proportions in the coming years. Minorities, including Spanish-speaking aliens, currently account for about 22 percent of new labor force entrants. Because of higher immigration rates, the increasing number of Spanish-speaking undocumented workers entering the labor force, and the generally higher birth rates of minorities, they will account for close to 30 percent of new labor force entrants in the late 1980s.

All the numbers given on the labor force are projected from official labor force survey data, which are based on decennial census data. Adjusting these official numbers to take into account the presence of undocumented foreign workers who are primarily Spanish-speaking results in some modest changes. The overall growth in the labor force would be about 3.6 million workers more, and the total growth rate in the labor force would be about

0.1 percent higher per year. In terms of skills, these illegal immigrants tend to come with low skill levels and relatively poor educational backgrounds. In addition, Spanish-speaking immigrants change occupations much more rapidly than the average U.S. worker (or other immigrants). These illegal aliens will have dramatic impacts on specific subsections of the labor market (e.g., unskilled occupations, the labor market in the Southwest, or certain big cities in the Northeast).*

A MATURING WORK FORCE

While new entrants will be much scarcer in the 1980s, there will be a relative abundance of older, more experienced workers vying for middle-level positions in business organizations. As the first of the baby-boom age group reaches middle age around 1985, competition for middle-level, nontechnical positions will rise dramatically. For example, in the 1960s approximately 10 workers vied for each middle-management supervisory position. By the end of the 1980s, this ratio will increase to about 20 to 1. Many workers in this middle age group will be forced to accept jobs with status and pay scales below their expectations. Discontent among these older, experienced workers is likely to increase as they observe wages rising faster for lower-skill positions.

To deal with this middle-management excess, corporations will experiment with more diffuse organizational structures. We expect a big increase in such developments as flexitime, job sharing, and especially part-time work. Table 15 shows the increasing number of workers who will choose to do part-time work. Permanent part-time work will appeal to various segments of the job market in the 1980s: the employer who needs to attract workers who would not otherwise enter the labor force (e.g., older persons parents with young children, persons whose financial needs are limited); the worker from a household with two or more incomes and few or no children who might have the economic freedom to opt for more leisure rather than

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*U.S. Immigration and Naturalization Service, *Annual Report* and BLS, *Monthly Labor Review* "Occupation Change Among U.S. Immigrants," March 1978.

TABLE 15

PART-TIME WORKERS

(Percent of All Nonagricultural Workers)

	Part-time	Voluntarily Choosing Part-time
1960	17.3	13.3
1970	20.8	18.3
1977	22.1	18.7
1985	24.5	21.1
1995	27.0	23.3

Source: William Dentermann and Scott Brown, "Voluntary part-time workers: a growing part of the labor force," *Monthly Labor Review*, June 1978.

more pay; and the worker who puts a strong emphasis on self-fulfillment and who needs substantial amounts of time for his or her avocation. Recent studies have shown that a relatively large portion of the increase in women's participation rates comes from wives whose husbands already have incomes in the upper middle and upper ranges.*

Current surveys of the young show that positive attitudes toward work are declining but that nonmonetary rewards (i.e., "interesting work," "see the results of your work," "a chance to develop skills," "participate in decisions") are becoming more important.** The combination of the search for self-fulfillment, the new economic freedom of two household earners with

*Paul Rysauvage, "More wives in the labor force have husbands with above-average incomes," *Monthly Labor Review*, June 1979.

**M.R. Cooper, et. al., "Changing employee values: deepening discontent?" *Harvard Business Review*, January/February 1979 and G. Staines and R. Quinn, "American workers evaluate the quality of their jobs," *Monthly Labor Review*, January 1979.

few children, and the squeeze on middle-management promotions is likely to produce a large increase in the number of workers changing occupations or careers. Many people in their 30s and 40s are likely to be looking to find "the right job for me" or to find a smaller firm or a relatively autonomous branch of a larger firm.

THE ECONOMY

The decline in the number of new labor force entrants during the 1980s will create a new economic environment. Increased investment will have to be substituted for labor force growth in order to maintain adequate growth rates. This is a major transition for an economy that has come to rely heavily on cheap and plentiful labor in the last few years. Table 16 points to the current increased reliance on cheap labor in contrast to the postwar pattern of growth depending on high rates of investment and productivity.

TABLE 16

PATTERN OF U.S. ECONOMIC GROWTH, 1948-1978
(Annual Rate of Growth)

	1948-73	1973-78
GNP (in 1972 dollars)	4.0	2.5
Business investment (in 1972 dollars)	3.9	1.4
Productivity (output per hour)	2.9	0.9
Labor force	1.4	2.3

The relative abundance of labor in the 1973-78 period has been dramatically reflected in a lowering in the relative cost of labor. Average weekly earnings of workers in private business rose at an annual rate of 1.9 percent in constant dollar terms between 1948 and 1973; they fell by 0.9 percent a year between 1973 and 1978. At the same time, there has been a much faster rise in the cost of capital equipment: between 1948 and 1973, producers' capital equipment rose on average at about the same rate as the GNP deflator; since 1973 it has been rising some 33 percent faster. In addition, the sharp escalation in overall inflation rates and in interest rates has increased the amount of uncertainty attached to longer-term investments. Thus, at least

since 1973, labor has been seen as a relative bargain compared to other productive inputs.

The pattern of growth evident in the last few years will not be dominant in the future. We have already seen that there will be a major shift in the availability of new labor force entrants. Other key factors that will influence economic change during the 1980s include energy, inflation, government policy, and investment.

KEY FACTOR: ENERGY

The energy situation, of course, will be a critical variable in determining the likely course of the economy. While there may be temporary periods of shortage, over the longer run energy will be available--but at very high prices. The price of benchmark Saudi crude, for example, will rise at an annual average rate of 6 percent above the average rate of U.S. inflation. This rapid rise in the relative cost of energy will contribute substantial inflationary pressures to the economy throughout the 1980s.

KEY FACTOR: INFLATION

Spurred on by energy prices, inflation will be high, averaging almost 9.0 percent per year through the 1980s. This implies several bouts with double-digit inflation in 1979-1980 and again in mid-decade. It also implies, however, that the inflationary spiral will not get worse during the decade.

One reason the inflationary spiral is not expected to continue to accelerate is the havoc that it will create with family budgets. Table 17 suggests some major discrepancies among various budget items likely to be experienced by the consumer. The relatively large increase in certain necessities--home purchases, medical care, gasoline, and home heating--will produce a continuing popular concern about inflation. Figure 2 indicates that current inflationary expectations are at a peak. The high level of inflationary expectations are mirrored in the public's concern over inflation as the critical economic issue that the government must face: in recent polls, two out of three people have identified inflation as the most serious

TABLE 17

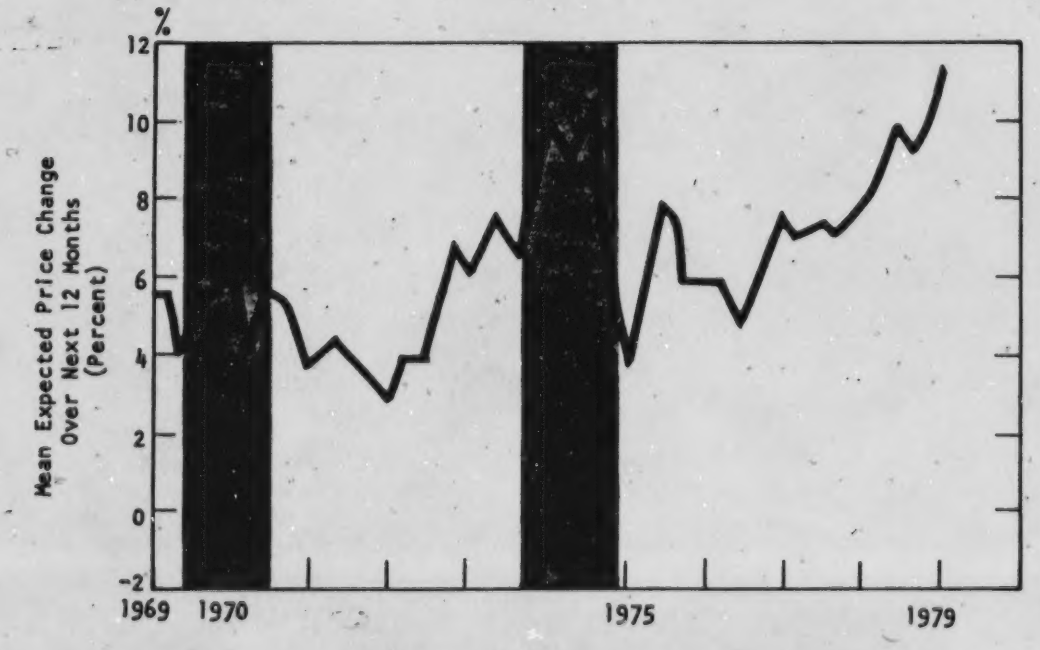
RELATIVE INFLATION RATES, 1979-1990
(Annual Average Percent Increase)

Consumer price index, Total	8.0
Food	7.8
Apparel	6.0
Home purchases	9.0
Home furnishing	6.9
Automobiles	6.7
Personal care	6.3
Medical care	9.1
Recreation	7.2
Gasoline	14.0
Home heating	13.5

economic problem for the United States. This has already had a dramatic effect on the government's role in the economy and will continue to influence government policy throughout the 1980s.

FIGURE 2

INFLATIONARY EXPECTATIONS



KEY FACTOR: GOVERNMENT POLICY

The manner in which the government responds to the current economic situation will be critical. Most candidates for public office, from president through town councilor, are expressing concern about inflation. And while little can be done to mitigate the impact of higher energy prices on the economy, there are longer-term signs that government is taking appropriate actions to reduce the inflationary forces over which it has some control.

Recent appointments to the Federal Reserve Board indicate that through the early 1980s monetary policy will give strong priority to longer-term price stability. Government spending continues to grow more slowly than overall GNP. In fact, the Congressional Budget Act of 1974--which forced Congress to set targets for overall receipts and outlays before deciding on any detailed spending programs--continues to have an almost revolutionary impact. Since its full implementation in 1976, government purchases of goods and services in constant dollars have been growing at about one-third the rate of real GNP; and despite an expected growth in real spending on defense, this trend should continue over the next five years. The recent successful experiments with deregulation in the airline industry are opening up real possibilities of change in other transportation areas, communications, banking, and insurance. Finally, growing public concern over productivity and investment has already produced the 1978 Revenue Act, which lowered the tax rate on corporate income and capital gains and expanded modestly the investment tax credit. Additional tax benefits for business investment (such as improved accelerated depreciation schedules) are likely by the early 1980s. Government policies of this kind should reduce the push that the government sector was giving to inflation in the 1960s and 1970s and should create a more positive attitude for business investment and productivity gains.

KEY FACTORS: INVESTMENT

The climate for business investment is shrouded with uncertainties: the availability and cost of energy, inflation, the future course and cost of health care, environmental regulations, and the long-term outlook for consumer

spending. But the more positive incentives that the government will offer for new investments will help, as will a loosening of regulations in certain areas. If there is any sizable reduction in the rate of inflation in the early 1980s, we can expect business investment to be of critical importance in leading the economic recovery and providing an underpinning for the real growth that we will have during the 1980s.

MACROECONOMIC CONDITIONS IN THE 1980s

It will be some time before the price spiral will be contained. It will probably take about two years of economic slowdown before there is a decided drop in the rate of price increase. The economic slowdown, especially as it spreads to other industrial countries, will affect the markets for energy goods and moderate the inflationary impact of high crude oil costs; it will slow the inflationary pressures coming from some key societal bottlenecks where skilled labor is in short supply; and it will gradually stabilize the inflationary expectations of both consumers and business people.

In the longer run, government policy, especially policy intended to create a better environment for business, should contribute to a substantial increase in business investment. This will be important as the rate of increase in new labor force entrants drops. Finally, a revival of consumer confidence in a relatively stable climate should produce a period of moderate expansion through the mid-1980s.

Overall, the 1979-90 period will average a 2.7 percent annual increase in real GNP and a disturbingly high inflation rate of almost 8 percent. The pattern of economic growth will be very different from that of the 1970s in that investment, increased productivity, and technological innovation will play a more important role than labor force growth. Table 18 compares the pattern of growth in the 1980s with that of the 1970s.

Moderate GNP growth rates despite the fall in labor force growth should lower, to some extent, the chronically high unemployment rates of the 1970s. While unemployment averaged 6.2 percent per year during the 1970s (with an annual average of 8.5 percent in 1975), it should fall over the decade to

an average of around 5.3-5.5. There still will be a high peak of some 8 percent in the early 1980s, and unemployment among certain select groups (e.g., inner-city black teenagers) will be very high.

TABLE 18

PATTERN OF U.S. ECONOMIC GROWTH, 1973-1990
(Annual Rate of Growth)

	1973-78	1979-90
Real GNP	2.5	2.7
Real Business Investment	1.4	4.0
Productivity	0.9	3.0
Labor Force	2.3	1.3

SOCIETAL EXPECTATIONS

Public confidence in major societal institutions fell sharply during the late 1960s and continued low through the 1970s (see Table 19). This fall in confidence coincided with the failed promises of the 1960s regarding full employment, a fine-tuned economy, and a successful "war on poverty," as well as large-scale publicity about leadership failures such as Watergate, bribery, and bugging. Increasing confusion about our role in world affairs paralleled the growth of Soviet military power, the Vietnam debacle, the decline in the value of the dollar, and our growing dependence on foreign oil. The inability of either the public or private sector to resolve the economic issues of relatively slow growth and high rates of inflation was obviously the single most important variable in the general lack of confidence in traditional leadership.

TABLE 19

PUBLIC CONFIDENCE IN MAJOR INSTITUTIONS

(Response to question: Would you say you have a great deal of confidence in people running the following institutions?

	1966	1978
Congress	42	10
Federal Executive Branch	41	14
Major Corporations	55	22
Labor Unions	22	15

Source: Louis Harris and Associates

GOVERNMENTAL EXPENDITURES

It is likely that the relatively poor performance of the economy in the 1980s will keep the public's regard for government low. A major indicator of this attitude is the most direct measure of government involvement in society: total government expenditures as a percent of GNP. (Total government expenditures includes all levels of government--federal, state, and local--and all forms of spending, both purchases of goods and services and transfer payments, interest payments, and subsidies.)

Total government expenditures as a percent of GNP rose dramatically during and after the Korean War as defense spending rose from its post-World War II low. Total expenditures then held steady until the mid-1960s, when they rose from about 27 percent of GNP in 1965 to 35 percent in 1975. Most of the increase in expenditures reflected the cost of the Vietnam War and the social programs associated with the 1960s: new forms of welfare assistance, better coverage under social security, and a rise in the number of eligibles. Also, the baby-boom group produced a massive increase in spending on postsecondary education.

Since 1975, however, there have been signs of a substantial reversal in this trend. The primary forces behind this stabilization are new public attitudes. With continued high inflation rates impacting every cost from food to fuel to housing, the American middle class--growing more doubtful about the efficiency of many big government programs--has responded with fiscal toughness. The visible signs of this attitude shift have already appeared in the Congressional Budget Act of 1974 and the popular votes supporting Propositions 13 and 4 in California (placing limits on property tax and total government spending). Table 20 shows that from its peak in 1975, government expenditures as a percent of GNP have already begun to fall.

During the 1980s, government's share is expected to fall even further due to such changes as a standardization of welfare payments, an increase in charges for medicare and food stamps, and a leveling off in education expenditures. Perhaps most importantly, the political and economic rise

TABLE 20

THE SIZE OF THE GOVERNMENT SECTOR

(As A Percent of GNP)

	Government Purchases of Goods and Services	Total Government Expenditures*
1950	13.5	21.3
1955	18.8	24.5
1960	19.8	27.0
1965	20.1	27.3
1970	22.3	31.8
1975	22.2	35.0
1979	20.0	31.7
1985	18.5	30.0
1990	18.5	30.0
1995	20.0	32.0

*Includes transfer payments, net interest paid, and net subsidies.

Source: Commerce BEA "National Accounts," *Survey of Current Business*, various editions.

of the conservative sunbelt states will ensure a substantial anti-big government bloc in Congress. The southern and western states are projected to have a majority of Congressional seats after the 1980 census is tabulated.

By the late 1980s, we expect the fiscal conservatism movement to have slowed a bit; pent-up pressures for more government support in critical areas--health care and the cities in particular--should boost the share of public spending once again to at least current levels.

THE WORKPLACE

In addition to decreasing confidence in government, the public seems to have suffered some deterioration in job satisfaction during the 1970s, although this trend is neither as strong nor as clear-cut. Periodic surveys have shown a statistically significant fall in workers' perception of

job satisfaction--both as an overall measure and in five of six specific areas of concern (comfort, challenge, financial rewards, resource adequacy, and promotions). The fall is particularly noticeable between 1973 and 1977 (Table 21).

TABLE 21

JOB SATISFACTION INDICATORS, 1969-1977

	1969	1973	1977
General satisfaction values	3.75	3.79	3.66*
Specific values: Average	3.24	3.20	3.05*
Comfort	3.14	3.03*	2.87*
Challenge	3.26	3.21	3.06*
Financial reward	3.06	3.10	2.89*
Relations with coworkers	3.41	3.34	3.40
Resource adequacy	3.45	3.44	3.28*
Promotions	-	2.63	2.46*

Source: Survey Research Center data reported in *Monthly Labor Review*, January 1979. The index is a composite of positive responses to questions on R. Quinn and G. Staines, *The 1977 Quality of Employment Survey*, Institute for Social Research.

*Statistically significant changes.

But the evidence on growing job dissatisfaction is not simple to interpret. Although there are some signs that workers feel their current skills are being underutilized on the job (e.g., in 1967 27 percent of workers interviewed felt they had skills that were not being fully utilized; by 1977 this percentage had risen to 36 percent), at the same time, there was no evidence that workers felt that overeducation was increasing. In the 1977 survey, a large majority of workers (69 percent) agreed that their jobs required "a high level of skill" and an overwhelming number (83 percent) that their jobs required them to "keep learning new things."* Further,

*"Workers Evaluate Their Employment," *Monthly Labor Review*, January 1979, p. 9.

evidence from the same time period as the surveys indicates that labor turnover rates have actually fallen. For example, in the three years around 1969 (1968-70) labor quit rates averaged 2.4 per hundred workers per month; in the three years around 1973, 2.4; and in the three years around 1977, 1.9.*

Several factors in the 1980s could contribute to changing workers perceptions about their job and the role of work in their lives. Fewer new workers will enter the labor force during the 1980s and the early 1990s; an increasing portion of the labor force will be accounted for by the 24- to 44-year-old age cohort. There will be a noticeable squeeze on the hierarchical ladder as more and more middle-level managers will find opportunities for advancement limited.

This middle-management crunch will coincide with important changes in the household and familial characteristics. The trend toward having at least two earners in a household has been a strong one for two decades and will continue to grow in the 1980s. The number of families with more than one worker in the labor force rose from 43 percent in 1960 to 53.1 percent in 1970 to 62 percent in 1978, and should increase to almost 70 percent in the early 1990s.** Further, since each family is likely to have fewer children than in earlier years, each household will have much greater flexibility in dealing with job dissatisfaction. It will be much easier for an individual worker to choose to switch jobs or even careers with fewer dependents and another earner in the household. Or an individual worker may find it convenient to move to a part-time work schedule.

With fewer new workers coming into the labor force, employers will have greater incentive to be flexible and meet the needs of workers. Thus, increasingly during the 1980s, we anticipate that there will be much more use of part-time workers, flexitime schedules, much greater opportunities for job training and retraining, and an increased tendency for career changes.

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*BLS *Handbook of Labor Statistics*, Table 54.

**BLS *Handbook of Labor Statistics*, Table 27.

EDUCATION

The education system has experienced major shocks during the 1970s, in both quantitative and qualitative terms. Demographic changes have led to declining enrollments while a variety of population and social factors have had important impacts on perceived quality of education.

ENROLLMENT

The number of people in each age group enrolled in school will go through considerable fluctuations over the next 15 years. These fluctuations will result from two different factors: the change in the absolute size of various age groups and the percentage of each age group enrolled in schools. Table 3 shows the variance in the size of the key school-age groups, with particularly sharp declines in the numbers of younger children in the late 1970s, of teenagers in the mid- and late 1980s, and of young adults in the late 1980s and early 1990s.

These population declines will be offset to some degree by increases in enrollment percentages. Table 22 shows the percentage of population in each age group enrolled in school. The major changes anticipated include: a steady increase in the number of children under 5 included in preschool programs; an increase in college attendance among the 20- to 24-year-old age groups, especially among white females and blacks of both sexes; and some continued increase in the number of adults who go back to school to finish a degree program, for career retraining, or for a broadening experience. The anticipated numbers of students enrolled between 1970 and 1995 are presented in Table 23.

TABLE 22

ENROLLMENT PERCENTAGES, 1970-1995

(percent of civilian non-institutionalized population enrolled in the regular* school system)

Age	1970	1977	1985	1995
0-5	21.6	26.7	31.2	38.1
6-13	99.1	99.4	99.4	99.4
14-15	96.8	98.5	98.5	98.4
16-17	90.0	88.9	88.9	89.0
18-19	47.0	46.2	46.4	46.7
20-21	31.1	31.7	34.0	36.1
22-24	15.6	16.5	17.8	19.3
25-29	7.6	10.9	11.5	12.3
30-34	4.2	6.9	6.7	6.6
35+	1.0	1.6	1.6	1.6

*Regular school: public and private nursery schools, kindergartens, elementary schools, high schools, colleges, universities, and professional schools. Students on full- and part-time basis are included.

The pattern of decline in enrollment will have a differential impact on different types of schools. Table 24 shows the anticipated numbers enrolled by type of school between 1970 and 1995. An enrollment decline does not show up for preschool and kindergarten programs because of the expanded attendance of 2- to 4-year-olds; the decline, already in evidence in elementary schools, should continue until the mid-1980s when the impact of the echo boom is felt; high school enrollments should fall throughout the 1980s, as should college enrollments in the 1990s.

TABLE 23

NUMBERS ENROLLED IN SCHOOL,
BY AGE, 1970-1995
(in thousands)

Age	1970	1977	1980	1985	1990	1995
0-5	4670	5109	5741	7225	8298	8523
6-13	33262	29396	27519	26767	30039	32090
14-15	7901	8242	7514	7282	6345	7475
16-17	7066	7576	7333	6313	5707	6527
18-19	3374	3814	3847	3301	3244	3063
20-21	1945	2542	2652	2631	2481	2223
22-24	1488	1918	2116	2223	1985	1974
25-29	1060	1975	2161	2432	2467	2235
30-34	493	1075	1199	1323	1411	1388
35+	860	1485	1551	1695	1855	2037
Total	62119	63132	61633	61192	63833	67535

Enrollment decline of more than 2 percent from preceeding period

TABLE 24

NUMBERS ENROLLED IN SCHOOL,
BY TYPE OF SCHOOL, 1970-1995
(in thousands)

Type of School	1970	1977	1980	1985	1990	1995
Preschool and Kindergarten	4406	5026	5637	7060	8133	8395
Elementary, Grades 1-8	34340	30111	28198	27489	30618	32740
High School, Grades 9-12	14898	16152	15282	13992	12608	14380
College	8475	11843	12516	12651	12474	12020
	62119	63132	61633	61192	63833	67535

One other notable feature will be the increase in the portion of minority students (Table 25). The greater share among elementary and high school students is due to the younger age structure of the minority population and higher birth rates among minorities. An additional factor increasing the minority population at the college level is a continuation of the "catching-up" to white rates of college enrollment; this catching-up phenomenon has been in evidence throughout the 1970s. In addition, the percentage of another identifiable minority, the Spanish-speaking students, is high in certain regions of the country and will grow rapidly during the 1980s as well.

TABLE 25

MINORITY PROPORTION OF SCHOOL ENROLLMENTS
(percent of all students that are non-white)

	1977	1995
Elementary	17.5	19.4
High School	16.9	21.0
College	14.3	18.7

EDUCATIONAL PROBLEM AREAS

Two areas will cause serious concern in regard to education in the decade of the 1980s: The declining quality of education in general and the serious discrepancy in academic achievement between the high-performance and the low-performance groups.

The Declining Quality of Education

Over the last 16 years, the traditional yardstick of what high school students across the country have learned--national standardized tests--has

shown a pervasive, steady decline. While there is considerable controversy over the validity of such tests and widespread acknowledgement that students learn things not measured, these tests are important indicators of change.

The most important measure of achievement over the last two decades has been the Scholastic Aptitude Test (SAT). The SAT has been used since the 1920s to help determine high school students' apparent preparedness for college. About one-quarter of all people in the relevant age group take the exam each year. The scores on this test have been declining steadily since 1963 (Figure 3). A broad range of standardized achievement tests have shown similar results. A summary of these test scores concludes that since 1965:

> Score declines have been observed in so many different groups and so many tested areas that serious attention must be devoted to them. The declines have not been large in any given year, but they have been quite consistent over time, area, and group.*

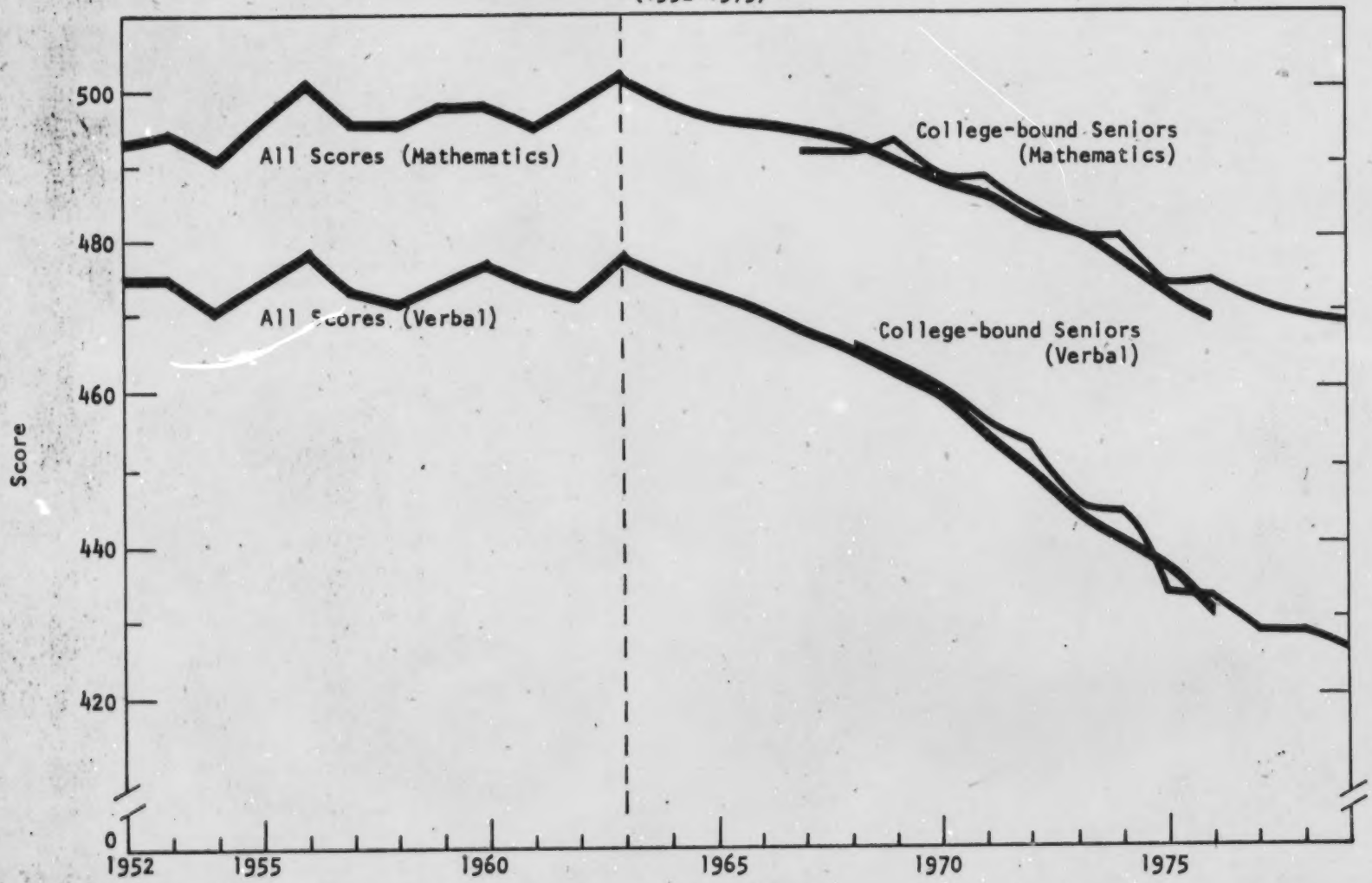
A number of factors have been used to explain the decline in test scores, including: changes in the test-taking population, social change, and changes in the schools.

Changes in the test-taking population. A portion of the decline in the test scores can be attributed to the expansion of the test-taking population during the 1960s. Increasing open enrollment policies in some colleges and the expansion of two-year colleges meant that the percentage of high school graduates going on to college rose rapidly during that decade--from 42.4 percent in 1960 to 52.2 percent in 1970. Several groups that traditionally had low test scores were making up a larger share of those taking the standardized college entrance tests: lower socioeconomic groups; women (who tend to average more than 50 points lower than men on the mathematics section); and minorities (who average

*College Board and Educational Testing Service, "Summary of Score Changes (in other tests)," prepared as an appendix to *On Further Examination: Report of the Advisory Panel on the SAT Score Decline*. See also the work done by the National Assessment of Education Progress.

FIGURE 3

SCHOLASTIC APTITUDE TEST SCALED SCORE MEANS
(1952-1979)



Source: College Entrance Examination Board

100 points lower on both the verbal and math sections).*

But the change in the composition of the test-taking population can explain only a portion of the score decline: by 1970 the increases in the number of young people actually taking the test had leveled off and the relative portions of lower socioeconomic groups, women, and minorities taking the tests stopped growing. Yet the trend toward lower scores continues.

The decline in test scores does not merely reflect a general lowering of scores, but also shows markedly smaller numbers of high-scoring students. Table 26 shows the percentages of students scoring above 600 on the SAT from 1967 through 1979. The decline in high scores has continued though the rate of decline seems to have slowed in the mid-1970s.

TABLE 26

HIGH-SCORING CANDIDATES, 1967-1979

(percent of all test scores over 600)

	Verbal	Math
1967-69	12.1	17.9
1970-72	11.4	17.5
1973-75	8.7	16.1
1976-79	7.9	15.7

Societal changes. A number of pervasive changes in society have understandably affected children's performance in the schools, most notably changes in the family and the growing influence of television.

*"The SAT Score Decline: A Summary of Related Research," Appendix to *On Further Examination:*

The traditional family has undergone major changes since the early 1960s. During the last 15 years, we have witnessed the rise of the singles movement, skyrocketing divorce rates, record low birth rates, the postponement of marriage, and the proliferation of alternatives to marriage. We have seen the number of children under 18 living in single-parent families double between 1960 and 1977 and the number of children in families with a mother working rise sharply. This suggests an increasing number of children who are now left in day-care centers, with baby-sitters, or by themselves. They are spending less and less time talking with their parents and doing homework under parental supervision.

With the exception of the family, the factor most often cited as influencing, positively and negatively, the quality of education is the impact of technology. That verbal scores have decreased even more sharply than math scores (and that the area of competency in math in which students are weakest involves problem solving in a verbal context) has led to a search for factors that specifically affect reading and writing skills. While no studies have proven conclusively that watching television, for example, has contributed to illiteracy, certain facts are striking. The average American child between the ages of 5 and 18--who spends about 11,580 hours in school--will spend approximately 15,000 hours watching TV. TV viewing tends to reduce the amount of reading, substitute learning from pictures for learning from print, and reduce homework time. Other factors being equal, higher than average viewing tends to be associated with lower-than-average test scores.*

Changes in schools. A large part of the public blame the schools for the decline in quality of education. Table 27 shows

*Wilbur Schramm, "Television and the Test Scores," Appendix to *On Further Examination*.

the results of a periodic survey of the public's grading of the public school system. The decline in public confidence in schools reflects the fall in confidence in institutions in general, but there are some special factors in the school situation.

TABLE 27

PUBLIC FEELING ABOUT LOCAL SCHOOLS

(in response to question: What grade would you give to the public schools in this community: A,B,C,D or F?)

	Percent of Total					
	A	B	C	D	F	Don't Know
1974	18	30	21	6	5	20
1979	8	26	30	11	7	18

Source: Gallup Polls of Attitudes Toward Education.

Several critics have cited the activities of the teachers themselves and the influence of collective bargaining agreements as possible contributing factors to the pervasive score decline in recent years. Collective bargaining agreements have served to limit the actual number of hours a teacher spends in the classroom, and hours lost due to strikes and walk-outs became more significant during the late '60s and early '70s.

TABLE 28

TEACHERS' STRIKES

ANNUAL AVERAGE PERSON-DAYS LOST THROUGH WORK STOPPAGE

1963-66	24,893
1972-73	1,350,000

Source: BLS *Handbook of Labor Statistics*.

Increased racial tension and increased violence in the schools have been considerable distractions for already apathetic students--as have alcohol and drug problems. The increase in students' negative attitudes toward school throughout the '70s has paralleled a lack of respect for the institution and a general decline in the belief that what school offers is of value.

Changes in curricula have naturally paralleled these other movements in the schools. Both what is taught and how it is taught have changed substantially over the past 15 years--in ways that may not necessarily prepare students for standardized achievement testing.

A special study of textbook language and structure commissioned by the College Entrance Examination Board contends that although SAT verbal questions are still written on an eleventh to twelfth grade level, texts now commonly used at those grade levels were in fact written for ninth or tenth grade reading levels.*

Studies of both California and Massachusetts schools have demonstrated the falloff in enrollments in basic English courses when other electives and specialty courses are offered. There are many reasons more electives have been offered: in an attempt to interest unmotivated students, to offer courses more "relevant" to personal experience, or to respond to the needs of special groups (non-English speaking, the handicapped, different ethnic groups).

Discrepancies in Achievement

Throughout the overall average score decline in this period, the disparity in academic achievement between certain population groups has

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* Jeanne Chall, "An Analysis of Textbooks in Relation to Declining SAT Scores," *On Further Examination*.

remained constant. This achievement gap has been well documented and a number of groups and locations have been identified that are associated with lower than average academic scores.* These groups or locations include:

- individuals whose parents have limited education
- blacks
- Hispanics
- school districts in aging central cities
- school districts in extreme rural areas
- school districts with a high proportion of AFDC clients

In most achievement test programs, the test scores of each of these population groups declined in successive assessments at about the same rate as the nation and thus remained below the national average.** The only exception in the pattern was a steady relative improvement in the performance of groups in school districts in extreme rural areas.

FUTURE TRENDS IN EDUCATIONAL ACHIEVEMENT

Several of the indicators that have been most closely linked to the decline in scores on standardized tests are likely to remain a negative influence. The number of single parent families is likely to grow, as is the percentage of children whose mother is working. The relatively slow growth in the economy will assure that a large number of families with children will remain with limited incomes. The mood of fiscal conservatism will constrain the amount of funds that school districts can spend on keeping teachers' salaries up to the level of inflation, much less on upgrading their programs.

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*See the scores of population groups in the achievement tests of the National Assessment of Educational Progress (NAEP), or of individual school districts as reported in state studies like California, Department of Education, California Assessment Program.

**See *Three Assessments of Scores: Changes in Achievement*, NAEP, 1978.

Consequently the militancy of teachers should remain high. There is no evidence that the amount of time children spend watching TV will fall. And societal problems like inflation, energy shortages, and the U.S. international role promise to keep environmental uncertainties high.

There are several factors pointing to change; at least some of which might have a positive impact on schools. Poll data show that societal concern over schools is high. Such concern is behind much of the push for competency testing and a curriculum focus on basic skills. The movement has generated a lot of interest on the part of the public and activities related to basic education by school administration. The National School Board Association has indicated that at least 70 percent of their member school district representatives have expended some effort in consideration of back-to-basics issues. Twenty-six percent have amended their curricula to increase time spent on basic subjects and an additional thirty percent have been considering basics-oriented curricula.

Central to the objectives of the basic skills movement is the development of proficiency standards to determine attainment of basic literacy. The related movement over the last few years to required competency testing at certain grade levels and as a prerequisite for graduation epitomizes the back-to-basics movement. Thirty-four states have taken some action regarding setting levels of minimal competency over the last five years. Although testing programs of this nature have encountered opposition from organized teachers groups, the public strongly favors these moves as a way of assuring accountability and resisting the devaluation of a high school diploma.

In addition, a change in attitude is being noted in students themselves with recent polls of college freshmen showing a much more practical approach to education in terms of using it to learn specific job skills. Between 1968 and 1978, the preference of entering college freshmen for careers in business almost doubled (from 11 percent to 19.3 percent).*

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*Cooperative Institutional Research Program, UCLA, *The American Freshman: National Norms.*

Careers in the professions (health, law, and engineering) went up from 18.5 percent in 1968 to 21 percent in 1978. In the meantime, career preferences in school teaching and social work, and for full-time homemaking dropped sharply. These two factors, a growing public concern for basic standards of achievement and a growing concern on behalf of the students for practical education achievement, could act to slow or stop the long decline in test scores.

Still the chances for near-term improvement, especially in narrowing the discrepancies among population groups, do not appear imminent. The negative trends forecast for the 1980s (more single-parent families, more mothers working, less government spending on education, slow growth in public social spending, etc.) are likely to affect these groups much more than the overall national average. Thus, in the decade of the 1980s, we can look forward to a leveling off in the decline in average student achievement on standardized tests. But the discrepancy between the best-performing and the worst-performing is likely to widen, and the percentage of children in low-performing groups may grow.

PART II

IMPLICATIONS FOR VOCATIONAL EDUCATION

The trends in the external environment discussed in Part I will have an important impact on vocational education in the next 15 years. This part of the report examines some of the changes that might be expected. Section 1 identifies the external factors that will have the greatest impact on vocational education. Section 2 analyzes the expected changes in population groups that make up the potential clientele for vocational education. Section 3 discusses the policy implications for planners in vocational education.

EXTERNAL FACTORS FOR CHANGE

Each of the changes in the external environment described in Part I could create new problems or opportunities for vocational education. The most important of these factors include:

DEMOGRAPHY

- Between 1977 and 1985 the relative number of young people between the ages of 16 and 24 will drop sharply.
- At the same time, there will be a rise in relative share of the population in several other age categories, notably those aged 35 through 44 and those 65 and over.
- The relative number of minorities among the younger age groups will be increasing, especially if Hispanics are considered as a minority. The illegal alien population, which will number about 10 million people in the early 1990s is primarily young and Hispanic.
- The relative number of single-parent families will rise. Because of their increase and because of the growing number of households that depend on two earners, the share of children with a mother in the labor force will rise to almost 60 percent.

THE LABOR FORCE

- Fewer young workers will enter the labor force as the population between the ages of 16 and 24 declines.
- Questions of quality of young labor force entrants may arise as overall achievement scores decline and a larger portion come from disadvantaged population groups.

- Women will make up an increasing proportion of the work force. A larger share of this group will be made up of older women re-entering the labor force.
- There will be a further shift toward part-time work as more two-earner households opt for greater job flexibility.

THE ECONOMY

- As labor force growth rates decline, business will become more dependent upon effective use of capital. This implies more capital used per employee, better-trained employees, and possibly more in-house training.
- Employers will have a harder time recruiting skilled workers and are likely to look at relatively untapped groups for new employees: older persons, women who have been out of the work force, the handicapped, part-time workers, etc.
- Increasing inflation implies that cost of specialized vocational education training programs will rise rapidly. Specialized vocational programs that do not tie directly into a particular occupational need may run into economic difficulties.
- Anticipated real growth rates of almost 3 percent a year imply the spread of affluence. The number of households earning over $25,000. in constant dollars will double by the 1990s (most of the increase will be in young, two-earner households). More money will be available for specialized education.
- Businesses taking advantage of growing affluence may be in a better position to spend money on employee benefits, like education and retraining.

SOCIETAL EXPECTATIONS

- With the growing force of fiscal conservatism, less public money will be available for vocational education. It is likely that total public funds spent on vocational education will rise at a rate slower than the growth in nominal GNP.

- Increased dissatisfaction at work will spur demands for extra benefits. Among these benfits are likely to be tuition aid and retraining programs.
- Employers will become much more flexible. We are likely to see more decentralization of responsibility at the workplace, more autonomous work groups, and greater use of flexible working hours.

EDUCATION

- College attendance of the traditional student--the 20- to 24-year-old full-time attendee--will fall dramatically between now and 1995. This means that to retain enrollment levels, many colleges will seek to attract older, part-time students.
- Postsecondary education will have a greater concentration of older students in their 30s and 40s interested in career or occupational change.
- With decreasing enrollments, postsecondary schools will be even more aggressive in going after students that have usually been underrepresented: blacks, Hispanics, residents of aging central cities and rural areas, and older students.
- Some postsecondary schools may find it advantageous to cooperate with local businesses on in-house training or educational contracts.
- Public satisfaction (or dissatisfaction) over the quality of education will be an important consideration in the 1980s and could have a dramatic impact on curriculum and public funding support.
- The armed forces will provide a larger portion of all postsecondary training.

KEY POPULATION GROUPS

Most of the changes in the external environment that will affect vocational education, will have differing impacts on specific population groups. We have identified changes in 12 population groups that are likely to have the most dramatic effect on vocational education in the next decade and a half.

1. THE YOUTH GROUP (AGED 16-24)

The number of young people between the ages of 16 and 24 will drop considerably in the next 15 years. Since this age group has traditionally accounted for the bulk of the students in full-time vocational training, the implication is that the vocational schools dependent on younger full-time students will face a major increase in competition for a smaller student pool.

TABLE 29. POPULATION: 16-24

	In Thousands	Percent Change
1977	37,713	
1985	35,572	- 5.7
1995	31,398	-11.7

2. ADULTS (AGED 35-54)

Tables 30-33 show that the number of adults between the ages of 35 and 54 will increase substantially between 1977 and 1995 though the timing of the jump differs significantly from group to group. The 35- to 44-year-old age group will experience a big jump throughout the 1980s while the 45-54 group will show a substantial increase only after 1990. Persons over 35 have traditionally accounted for about 30 percent of postsecondary vocational educational students, and of these, less than 10 percent are enrolled full-time. Besides being the fastest-growing population group, these individuals

should experience a rise in the rate of career/occupation change. Both factors will mean that this group will account for a much more significant portion of vocational education students and that the portion of vocational educational students participating in part-time programs will increase.

TABLE 30. MALES: 35-44

	In Thousands	Percent Change
1977	12,153	
1985	16,258	+33.8
1995	20,901	+28.6

TABLE 31. MALES: 45-54

	In Thousands	Percent Change
1977	11,761	
1985	11,353	- 3.5
1995	15,634	+37.7

TABLE 32. FEMALES: 35-44

	In Thousands	Percent Change
1977	12,170	
1985	16,166	+32.8
1995	20,685	+28.0

TABLE 33. FEMALES: 45-54

	In Thousands	Percent Change
1977	12,139	
1985	11,627	- 4.2
1995	15,916	+36.9

3. ADULT WOMEN NOT YET IN LABOR FORCE

Prime candidates for vocational training will be found among the large number of women between the ages of 25-54 who are entering or re-entering the labor force. These women will be participating in the labor force and

enrolling in school at much higher rates (Tables 34-35). Not only will a large number of women be entering or re-entering the labor force each year, but many of these women will be seeking some type of career education. In addition to the greater number of women in these age groups, their labor force participation will be rising, increasing their interest in a variety of vocational programs. Thus, the portion of women over 25 in vocational education programs should increase as well.

TABLE 34. FEMALES OVER 25: LABOR FORCE PARTICIPATION RATES

	1977	1995
25-29	62.9	71.2
30-34	58.6	70.2
35-44	59.6	75.0
45-54	55.8	68.3

TABLE 35. FEMALES OVER 25: ENROLLMENT IN SCHOOL

(In Thousands)

	1977	1995	Percent Change
25-29	840	1,033	+19.0
30-34	527	675	+28.1
35+	899	1,221	+35.8

4. ADULT WOMEN IN THE LABOR FORCE PART-TIME

Another factor that marks adult women as prime candidates for a major increase in vocational education participation is the high share of women in part-time jobs. While many of these women have other out-of-job responsibilities (e.g., child care), their increasing interest in pursuing careers and earning an income creates a unique opportunity at some point for part-time vocational/occupational training courses.

TABLE 36. FEMALES: 25-54

PART-TIME EMPLOYMENT

(percent of all workers)

1977	18.6
1985	22.0
1995	23.5

Source: "Voluntary Part-time Workers," *Monthly Labor Review*, June 1978, p. 7.

5. STUDENTS IN TWO-YEAR COLLEGES

An increasing number of vocational and occupational programs are being taught in two-year colleges. In the mid-1970s, about 55 percent of degrees awarded by two-year colleges were in occupational curricula.* The two-year colleges have been very successful in appealing to students over 25 and to students taking part-time programs. With these two population groups growing rapidly (Table 37), two-year colleges in the U.S. will provide an increasing share of vocational/occupational training in the future.

TABLE 37. ENROLLMENTS IN TWO-YEAR COLLEGES

(Students 25 and over)

	In Thousands	Percent of All College Enrollment
1977	2,144	18.1
1985	2,570	20.3
1995	2,679	22.3

Source: CPR, P-20, No. 333.

6. MINORITIES: NONWHITES

The proportion of minorities in the school population is rising sharply because of demographic trends and the longer-term pattern of minority enrollments catching up to white enrollment rates (Table 38). Historically, the

*Bureau of Labor Statistics, *"Occupational Projections and Training Data,"* Bulletin 2020, 1979, p. 15.

percent of minority students in postsecondary vocational educational programs has been slightly lower than the minority share of the total population. We expect that minority enrollments in all kinds of vocational programs--from basic skills for disadvantaged students through sophisticated programs at the two-year college level--will increase at a much faster rate than white enrollments.

TABLE 38. MINORITY ENROLLMENTS
(percent of all students)

	High School	College
1977	16.9	14.3
1985	19.1	16.1
1995	21.0	18.7

7. MINORITIES: HISPANICS

The Hispanic population in the U.S. shares many of the same socioeconomic characteristics as the nonwhite racial groups: overrepresentation in the lower income groups, underrepresentation among college students and executive positions, poor achievement results on standardized tests, etc. The Hispanic population, which numbers about one-half the other minority groups, tends to be much younger than the white population, their birth rates are high, and their immigration rates are high. Thus, this group, too, is likely to account for a large share of vocational education students in the future with all the implications for special educational needs that might stem from cultural and linguistic differences.

8. SECONDARY SCHOOL ENROLLMENTS

Around fifty percent of enrollments in all types of vocational education courses are in secondary school programs. Secondary schools will feel the full force of the aging of the baby-boom group during the 1980s (Table 39). Vocational courses in secondary schools are likely to experience a similar sharp falloff. However, in the 1990s, the large number of children that will be born to the now-mature women of the baby-boom group should push total secondary enrollment, and in turn vocational course enrollments, up again.

TABLE 39. SECONDARY SCHOOL ENROLLMENTS

	In Thousands	Percent Change
1977	16,152	
1985	13,992	-13.4
1990	12,608	- 9.9
1995	14,380	+14.1

9. ARMED FORCES

The armed forces have long played an important role in vocational and occupational training. As an all-volunteer force, they are making a strong recruiting drive based on their ability to provide useful training for a civilian career. In addition, they have set a long-term target for the armed forces of around two million. This means that the armed forces share of the total young adult population will begin to rise in the late 1980s (Table 40). Since the majority of recruits will be males with high school degrees, the impact on this subgroup will be substantial: approximately 19 percent of all males between the ages of 18 and 21 who have a high school degree and who are no longer in school will be in the armed forces by the early 1990s. The armed forces will thus be providing a major share of vocational training for that age group.

TABLE 40. ARMED FORCES ENROLLMENT FROM 18- TO 21-YEAR OLDS

	Numbers	Percent of Total Age Group
1977	713	4.2
1985	630	4.1
1995	623	4.7

10. QUALITY OF RECRUIT: THE HIGH SCHOOL DIPLOMA

High school completion rates have increased over the past decade. Because the vast majority of students enrolled in postsecondary vocational education tend to be high school graduates, increased attainment has helped the growth of vocational education. By 1995 the number of high school dropouts and high

school graduates not in school in the 18- to 21-year-old age group will fall off substantially (Table 41). While there will be fewer graduates in the younger age groups, educational attainment in the over-35 age group will increase dramatically throughout the 1977 to 1995 period. (Table 42). Post-secondary vocational education will have many opportunities to tap this expanding source of serious, mature students by offering innovative part-time programs.

TABLE 41. HIGH SCHOOL DROPOUTS AND COMPLETERS
(Aged 18-24)

	Dropouts		HS Graduates, Not in School	
	In Thousands	Percent Change	In Thousands	Percent Change
1977	4,435		15,205	
1985	4,183	- 5.7	15,028	- 1.2
1995	3,539	-15.4	12,171	-19.0

TABLE 42. HIGH SCHOOL GRADUATES (AGED 35 AND OVER)

	In Thousands	Percent Change
1977	50,811	
1985	61,643	+21.3
1995	76,693	+24.4

11. QUALITY OF RECRUIT: WHAT IS LEARNED

While a greater proportion of students are finishing high school, the amount the students are learning in elementary and high school seems to be declining. The only objective measure of this declining performance is achievement on standardized tests. While there have been many critiques of what such tests actually measure, it seems clear that there has been a marked deterioration in student achievement, especially on understanding written material. And this deterioration holds equally for students at all levels of performance. This deterioration is likely to level off in the 1980s. Nevertheless, past records indicate that the achievement levels of the average student in vocational education will probably be lower in the future.

12. EDUCATIONALLY DISADVANTAGED

As a higher portion of all young adults attend regular colleges, other postsecondary vocational education programs can be expected to draw increasing numbers from educationally disadvantaged groups. These groups include inner city youth, high school dropouts, and students whose primary language is not English. Currently, these students receive much of their vocational training in the armed forces, through special government programs like CETA and the Job Corps, and on the job. Because these groups are sure to account for a larger share of vocational education programs, remedial education programs are likely to play a more prominent role within the more traditional curricula.

POLICY IMPLICATIONS

The perspectives of vocational education planners vary as widely as the population groups their programs serve. For purposes of this report, we have defined four different constituencies for vocational education: secondary school students, postsecondary noncollegiate students, two-year college students, and other students (e.g., armed forces personnel, CETA enrollees, apprenticeship trainees). The environmental factors we have examined will affect these groups in different ways and many of the policy choices faced by planners will result from shifts in enrollment among groups rather than shifts to or away from vocational education per se. Thus, in reviewing the major policy implications, we have tried to reflect the differential impacts that environmental changes might have on each group.

The following nine points summarize the major policy implications for planners in vocational education.

1. HIGH TECHNOLOGY

The economic outlook calls for a substantial increase in investment in the 1980s and an increasing substitution of capital for labor. This could well be a boom period for new technologies: new computer applications, wide utilization of microprocessors, a transformation of office word-processing and communications, an expansion of health-care equipment, a whole new field of biotechnology, etc. This expansion of high technology will have the effect of upgrading many occupations and making higher skill demands in formerly routine jobs or creating new skilled positions. This implementation of new technologies will create a myriad of opportunities for vocational education programs at all levels if program directors are sensitive to the pace and scale of shifts in employment opportunities.

2. LOSS OF TRADITIONAL STUDENTS

Secondary school enrollments in vocational education programs are sure to fall within the next decade, even if vocational programs maintain their relative share of secondary school enrollments. Postsecondary enrollments of students between the ages of 18 and 24 are also likely to fall--particularly after 1985. This will have an especially large impact on the full-time student population of noncollegiate postsecondary schools.

3. RISE IN IMPORTANCE OF NEW GROUPS

While the number of the traditional young adult, full-time vocational education students will decline, there should be a sharp rise in new candidate populations. Most notable among these groups will be young adults who are 35 and older, especially women re-entering the labor force, women currently holding part-time jobs, and both men and women who are seeking to upgrade their skills and make mid-career changes. Of all the vocational/occupational education providers, the two-year colleges seem best suited to meet the needs of this group. The two-year colleges have successfully recruited from a wide variety of people in this age group, and word-of-mouth information about course options can spread quickly. In order to survive, more limited noncollegiate vocational education programs will have to develop a much more aggressive marketing network to identify potential students in these age groups and convince them of the benefits of their programs.

4. THE EDUCATIONALLY DISADVANTAGED

Educationally disadvantaged groups will comprise a larger percentage of vocational education enrollment, especially in publicly sponsored programs (e.g., two-year colleges, publicly supported postsecondary noncollegiate schools, armed forces, CETA). This implies a complementary program of remedial basic skills courses along with the regular vocational/occupational skills course. Certain programs must be set up to target specific groups--inner city youth, Spanish-speaking adults in rural counties, etc. And teachers and curricula should reflect the changing needs of the students. Still, with skilled labor in relatively short supply (and inadequately prepared youth still in abundance)

the societal returns of any effective vocational training of these disadvantaged youths should be very high.

5. THE QUALITY OF STUDENTS

If achievement levels of the average student entering vocational education continue to fall, this will have serious consequences for curricula, teaching methods, and program goals over the longer-term. However, since the decline in standardized test scores has been slight on a year-by-year basis, no dramatic changes can be expected. Further, if motivation has been a factor in the test score decline, it may be that the older adults who are coming back to school for training related to labor force re-entry or career changes will be far more positively motivated than younger students. Thus, the schools serving more mature students may find a much higher success rate in their programs.

6. CULTURAL DIFFERENCES

A larger share of minority students will participate at every level of vocational education. Each minority group--blacks, Asians, Hispanics--will bring their own cultural expectations and perspectives. Adjustments in faculties and administrative personnel will be needed to better reflect the relative proportions of the clientele being served.

7. FINANCIAL PROBLEMS

Public support for vocational education increased rapidly during the 1970s. The same will probably not be true during the 1980s. The growing spirit of fiscal conservatism spawned by the high inflation rates of the 1970s will probably mean that education budgets will not keep pace with overall growth rates of GNP. The expanding population base among older adults may make two-year colleges an exception among public programs. But the crimp on public budgets should provide a substantial opportunity for the expansion of private-sector programs.

8. STRONG FUTURE COMPETITORS

Two-year colleges have already proven themselves an especially attractive source of vocational/occupational education for anyone over age 24, especially those seeking part-time training. As the numbers in this age group grow, two-year colleges should prosper.

To meet its personnel quotas, the armed forces must recruit a larger portion of the shrinking young adult group. Prime targets will be young adult males who have only a high school diploma. Thus, there is a real need to integrate the needs and objectives of the armed forces into any comprehensive long-term planning efforts in the field of vocational education.

Finally, businesses are likely to become even stronger forces in vocational/occupational training. Many more companies are likely to be offering employees opportunities for retraining or upgrading skill levels--particularly as young labor market recruits become harder to find, as longer-term employees show more dissatisfaction with their current jobs, and as sophisticated new technologies offer more efficient ways to accomplish certain tasks. We expect a substantial increase of in-house training programs, which will be in direct competition with other vocational education programs. But we can also expect to see an increase in tuition-aid programs and many more business-vocational school joint enterprises.

9. CURRICULUM DEVELOPMENTS

Factors implying a need for curriculum adjustments include: new programs for changing technological needs, increased sensitivity to changing age, sex, and ethnic composition of the vocational education population; more part-time participants; and more training designed for disadvantaged groups. The most important curriculum change may result from the growing cooperation between business and the vocational education establishment.

CONCLUSION: THE OUTLOOK FOR VOCATIONAL EDUCATION

The numbers of students enrolled in federally aided vocational education should continue to grow during the 1980s but at slower pace than historically. Between 1966 and 1972, vocational education enrollments in federally aided programs grew at an annual rate of 11.5 percent; between 1973 and 1978 that rate fell to 6.3 percent. With the fall in the absolute number of young people and the growing competition from non-federally aided programs, enrollment should grow on the order of three to four percent during the 1980s.

Direct public support for vocational education will also diminish because of the growing mood of fiscal conservatism. Still, indirect support for vocational education (through private business, armed forces training, etc.) should remain strong.

Important shifts in clientele will occur. There will be more part-time students, adults over 35, women, minorities, and educationally disadvantaged.

Finally, the role of certain providers of vocational education will increase significantly. The clear winners in the competition for students appear to be the two-year colleges, in-house business training, joint business-vocational school training, and the armed forces.

PART III
AN ALTERNATE ECONOMIC SCENARIO

There is a lot of uncertainty about the future. In fact, the future may not look much like the description in Part I. This section is intended to look at an alternative economic scenario and examine how it might affect the trends in vocational education. This will permit some assessment of the sensitivity of plans to alternate possible outcomes. We have selected what we call a pessimistic economic scenario, that is, one in which the economy has many more problems than those outlined in the most likely forecast. This scenario has a reasonable degree of probability (15 percent) but is much less likely that that described in Part I (40 percent).

A PESSIMISTIC SCENARIO

High rates of inflation pervade the economy. Periodic bouts with double-digit inflation are a direct consequence of energy price hikes, escalating food and housing costs, and bottlenecks in the production of certain materials and in the availability of certain skills.

The inability to control inflation and periodic shortages of key materials and skills creates a pervasive climate of pessimism. Both investment and consumer spending increase at rates well under historical averages. Real GNP growth averages about one percent per year.

The combination of high inflation and low growth puts a real squeeze on middle-class standards of living. Many women who would prefer not to work end up in the labor force, and an increasing number of older people are forced to postpone retirement. This means that an additional 4 to 5 million people join the labor force by the mid-1980s, so that the growth rate of the labor force actually increases (Table 43). While businesses substitute plentiful labor for capital, all the extra job seekers are not able to find jobs. Unemployment rates average more than one percentage point higher than in the 1970s, coming to 7.2 percent on average in the mid-1980s (about 8.8 million people). Rates are especially high among the young and the poorly educated.

TABLE 43

LABOR FORCE GROWTH

	In Millions	Rate of Increase	
1975	96.4		
1980	108.0	1976-80	2.3
1985	122.1	1981-85	2.5

With economic problems prominent and unemployment high, government spending increases at a rapid pace. Rather than decreasing as a share of GNP, total government spending, especially transfer payments to the unemployed, increases.

IMPLICATIONS OF THE PESSIMISTIC SCENARIO FOR VOCATIONAL EDUCATION

This type of economic framework would cause some special problems for vocational education. Seven are of particular note:

- During the 1980s, education will be much more dependent on older, part-time students whose choices on education and training are much more discretionary than their younger counterparts. Thus, in bad economic times, the drop in enrollments among the older age group may be very sharp.
- The lower rates of capital investment by business will mean that new technologies will be much slower in their spread through society. This implies less need for upgrading of job skills, fewer new technical positions, and less of a need for specialized vocational training.
- The cost of specialized vocational education will escalate even faster in this inflationary environment; fewer of the young will be able to pay necessary costs and many of the postsecondary noncollegiate schools will find themselves in financial trouble.
- Young people with limited job prospects will be discouraged from pursuing vocational education courses.
- Business, in times of poor profits and plentiful labor supply, will be much less interested in expanding costly in-house retraining of employees or tuition-aid programs. Joint business-vocational education programs will not get very far under these economic conditions.
- Disadvantaged groups--especially those who are young--will have a very tough time in the job market. They will have little incentive to enroll in vocational education. Instead of accounting for an increasing share of the vocational education market, they may account for a decreasing share.

- The armed forces will have a much easier time recruiting its full quotas. In such a situation, the military's incentive to enhance vocational training might fall. Young people leaving the army may be less well prepared for jobs in the private sector.

While potential problems in the vocational program within this pessimistic scenario are easy to identify, opportunity areas still remain. At least four are noteworthy:

- Government job programs modeled on CETA or the Job Corps are likely to expand. A host of opportunities will be opened up directly in the public sector or will be government-financed to deal with those chronically unable to find jobs.
- With youth unemployment high, the armed forces may even find its recruiting quotas far surpassed. This will provide them a chance to be much more effective in the whole field of vocational education.
- Two-year colleges will remain a place of relatively cheap vocational training. They may attract many youths away from alternative training programs.
- In bad economic times, many students who would normally have gone to college for liberal arts education may switch to a more practical program such as vocational education.

The pessimistic economic scenario, in general, will create a worse climate for vocational education. There will be some clear losers among client groups and among institutions that provide the education. But even in this environment, there will be some special opportunities for particular institutions.

Some comparisons between the implications of the two scenarios are interesting. In both scenarios, vocational education will be more dependent on the over-35, part-time attendee population. However, this dependence creates a greater vulnerability because the choice of the older population group to attend a vocational training program is discretionary and is likely

to change in bad times. The government's role can vary from a smaller factor in the most likely scenario to a dominating factor in the pessimistic one. In both scenarios, two-year colleges and the armed forces are clear gainers. Because of the high cost of much of the specialized training involved in vocational education, it seems to be vulnerable to a generally inflationary environment. Finally, in both scenarios dominant factors seem to point to a slower growth rate in vocational education enrollments.

ADDENDUM: REACTION OF PARTICIPANTS

The participants who discussed this paper at the conference on "Alternative Futures for Vocational Education"* raised a number of issues that reflected their specific concerns. Some of these issues emphasized points in the paper; others raised new concerns. This addendum summarizes the issues raised, dividing them into four sections: productivity, the public sector and education, education for special groups, and educational policy.

PRODUCTIVITY

How much confidence could be placed in descriptions of future changes in productivity when it is so difficult to ascribe the relative contributions of labor and capital to past changes in productivity? For example, can the record of a declining rate of growth of productivity in the United States during the last 10 years be accounted for by a fall in R&D expenditures, a lag in capital investment, a larger number of inexperienced workers, the rapid growth of the service sector (where productivity increases are basically not measurable), or to other factors? There is no consensus on identifying and quantifying relative contributions in the past, which makes it all the more difficult to discuss "appropriate" policy choices for the future.

Even if appropriate policies for the future could be identified, can we anticipate that entrepreneurs will act rationally and respond to the incentives established? The record of business leadership in certain major industries (e.g., automobiles, steel, railroads) indicates that decisions

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*Held at the National Center for Research in Vocational Education on January 8-9, 1980.

are made in terms of defending an established position or market share rather than in terms of efficiently utilizing capital and labor.

Finally, participants worried about possible changes in the long-term availability of capital and labor. For example, domestic investment funds might not be so plentiful if opportunities for profitable investment abroad expanded rapidly and attracted a greater portion of available funds. Or, the labor force situation could change dramatically if legal and illegal immigration increased substantially. Despite the uncertainties surrounding the future size of productivity gains and the causal relationship between vocational education and productivity, no one disputed that the latter two were strongly linked and that future increases in productivity would place great demands on the technical skills of the working population.

* * * * *

Authors' note: The participants' comments effectively make the point that forces that will actually determine productivity over the next decade are much more complex than those outlined in "The Economy" section of this paper. An in-depth study of such forces goes beyond the scope of this project. What this paper tried to do was to emphasize a fundamental point: There is going to be a major decline in the availability of labor over the coming decade; thus, future increases in productivity will be much more dependent upon increases in capital investment, whether that investment be in capital equipment or in labor training. That point, we think, remains true.

THE PUBLIC SECTOR AND EDUCATION

The government will continue to play a critical role in determining funding levels of education. At the same time, the ability of the government to provide funding can change radically. A war or serious crisis in the Middle East could greatly expand the government's role in society: public

spending would rise, the draft would be reinstituted, and the allocation of scarce materials would be rationed. Yet the resources available for education may be reduced by pressure for expenditure in defense-related areas.

Also, any increase in government expenditure is likely to have consequences for the taxpayer. Increases in government revenues might entail a greater burden on the middle class because of the graduated income tax. But it is this very squeeze on the middle-income taxpayer which is producing the taxpayer's revolt. The success of the taxpayer's revolt and the consequent fall in resources available to the government for many categories of non-defense spending is obviously the most troublesome element involving the public sector.

The restrictions on financial resources come at a time when other expenditure burdens will be growing for state and local governments. Over the next decade, for example, the as yet unfunded obligations of the government retirement system will be taking larger shares of budgets. In addition, the infrastructure built up over the last 40 years (roads, transport systems, water and sewer lines, etc.) will need massive funds for refurbishing. Such drains on state and local budgets, along with the taxpayer revolt, may mean critical shortfalls in revenues for the education system as a whole.

One major option to maintain the flow of funds to education is to have the private sector pick up a greater share of the costs. This could mean business sponsoring course work undertaken by employees at educational institutions or businesses conducting more formal training of their own. Also, individuals may pay more in tuition and fees. But such a choice can have serious consequences: it turns more of the decisions as to the type of education and who gets it over to businesses, who usually have a vested interest in the benefits of that education. People who need education the most may not get it. The increase in business training could weaken public educational institutions. And all this would be done with an implicit government subsidy since training and educational expenses are all tax-deductible for businesses.

EDUCATION FOR SPECIAL GROUPS

The educational opportunities open to the older working woman--or at least her ability to take advantage of these opportunities--may be greatly exaggerated. There seem to be three main limitations: the vast majority of jobs that women traditionally hold are clerical and require little additional education; very often the working woman has household or child-care responsibilities that limit the time available for education; and the income earned is seldom discretionary and available for educational expenses. A possibility for dealing with some of these problems would be a major expansion in the availability of day-care facilities.

A group that will be increasing its social participation over the next decade is the handicapped. The combination of economic necessity and improvements in medical science and technology will allow increasing numbers of handicapped persons access to education and to jobs.

EDUCATIONAL POLICY

The most critical problem may be the adaptability of educational policy-makers. A lot of information is available on demographic, economic, and governmental changes and their consequences. But the people in effective control of budgets and curriculum have to be able to adapt to these changes. For example, how effective will state legislators be in starting preparations now for the needs of the late 1980s? Or how effective will administrators at postsecondary schools be in adapting a curriculum from its present orientation to 18- to 22-year-old full-time students to a new one focusing on over-30-year-olds in part-time programs?

Finally, the point was made that even the evident problems of the future--the smaller number of students, the need to adjust to new groups, etc.--create opportunities for vocational education. This was best summarized by the remark: "If you don't have to worry about expansion of the product, you can pay more attention to the quality."

POLICY CHOICES IN VOCATIONAL EDUCATION:

TECHNICAL APPENDIX

Prepared for

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December 1979

R-48B

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Note: Each appendix starts with a more detailed table of contents.

INTRODUCTION

The main part of *Policy Choices in Vocational Education* presents what we see as the most significant relationships among key demographic, education, and labor force trends and their likely impacts on vocational education. The data in the Technical Appendix will allow the reader with special interests in particular topics to make a more detailed numerical analysis of these trends and to delve further into our projections.

Many of the text tables used in the body of the report were derived from census data that Institute staff manipulated on our computer account at Stanford University. Historical data were derived from the U.S. Bureau of the Census, U.S. Department of Commerce, and the Bureau of Labor Statistics, U.S. Department of Labor. Census population projections were adjusted to reflect the Institute's differing assumptions, and education and labor force participation rate projections were based on judgmental adjustments to historical trends. All assumptions and judgmental adjustments are explained in greater detail in the chapter introductions of this Technical Appendix.

APPENDIX A:

DEMOGRAPHY

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METHODOLOGY 2

U.S. TOTAL POPULATION
INCLUDING ARMED FORCES OVERSEAS IN
1970, 1975, 1977, 1980, 1985, 1990, and 1995 4

1977 U.S. POPULATION:
TOTAL, ARMED FORCES, INSTITUTIONAL,
AND NONINSTITUTIONAL BY SEX AND RACE 11

METHODOLOGY

This appendix presents two sets of population tables for the United States. The first set contains the 1977 distribution of total population including the armed forces overseas, the armed forces, the institutional population, and the civilian noninstitutional population broken down by age, sex, and race. The most recent year for which this level of detail has been published by the U.S. Census Bureau is 1977. Age cohorts have been chosen to correspond with the age cohorts presented in Appendix B, Educational Enrollment, and Appendix C, the Labor Force. There are 12 tables for 1977: the first are sex- and race-specific for white males, white females, black males, black females, males: other races, and females: other races; the other six tables group all males, all females, all whites, all blacks, other races: both sexes, and the total of all races and sexes.

Population figures in this first set of tables were obtained from Series P-25 of the *Current Population Reports* of the Census Bureau. For each sex/race combination, we subtracted the Census Bureau's published figures for the civilian population from the total population including armed forces overseas to derive the armed forces. Total population and civilian population were then adjusted upward to compensate for census undercount. We separated the institutionalized population from the civilian population in certain age cohorts published in the Census Bureau's *1976 Survey of Institutionalized Persons*, Series P-23, No. 69.

The second set of tables contains total population broken down by age, sex, and race for 1970, 1975, 1977, 1980, 1985, 1990, and 1995. Figures for the total population for the first three years are based on census estimates adjusted for undercount. Projection for 1980 and beyond are based on census projections, Series P-25. Census fertility rates have been adjusted to reflect the following Institute fertility projections.

IFTF FERTILITY RATE PROJECTION*

Years	White Females	Black Females
Present to 1980	1.8	2.3
1981 to 1985	1.9	2.2
1986 to 1990	2.0	2.3
1991 to 1995	1.9	2.2

* number of children born to an average woman during her lifetime.

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1970
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	11047	10590	9217	8786	1650	1632	180	171
6 TO 13	17166	16475	14551	13897	2385	2354	230	224
14 TO 15	4180	4016	3571	3412	556	553	52	51
16 TO 17	4031	3882	3469	3322	517	515	46	45
18 TO 19	3847	3705	3318	3175	485	486	44	44
20 TO 21	3661	3555	3167	3056	451	453	43	46
22 TO 24	5260	5103	4618	4452	585	589	57	61
25 TO 29	7241	7143	6321	6196	832	845	88	102
30 TO 34	6024	5997	5238	5182	708	725	79	91
35 TO 44	11945	11936	10444	10388	1328	1364	173	185
45 TO 54	11675	12130	10423	10812	1125	1205	126	114
55 TO 64	9087	10080	8179	9072	815	936	93	71
65 +	8481	11968	7743	10969	653	921	85	78
TOTAL	103645	106580	90257	92719	12092	12577	1295	1284

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1975
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	10276	9803	8416	7993	1617	1578	242	232
6 TO 13	15646	15000	13070	12473	2297	2259	279	268
14 TO 15	4375	4199	3700	3535	607	600	68	64
16 TO 17	4367	4204	3704	3552	598	591	66	61
18 TO 19	4297	4137	3653	3500	579	574	65	62
20 TO 21	4131	3995	3532	3394	540	541	59	60
22 TO 24	5855	5685	5035	4846	737	741	83	98
25 TO 29	8968	8790	7800	7568	1030	1045	138	177
30 TO 34	7298	7232	6340	6235	831	848	127	149
35 TO 44	11782	11783	10222	10157	1354	1398	206	229
45 TO 54	11926	12355	10557	10900	1202	1279	167	175
55 TO 64	9622	10691	8651	9593	867	1002	104	96
65 +	9258	13568	8410	12371	737	1092	111	106
TOTAL	107800	111442	93090	96117	12996	13548	1714	1776

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1977
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	9825	9360	7982	7573	1581	1538	262	250
6 TO 13	15141	14507	12569	11985	2267	2225	305	297
14 TO 15	4289	4113	3605	3445	611	600	73	69
16 TO 17	4383	4211	3702	3539	610	601	72	70
18 TO 19	4373	4214	3702	3553	600	592	72	69
20 TO 21	4298	4147	3648	3502	581	575	69	70
22 TO 24	6129	5958	5241	5055	793	793	95	109
25 TO 29	9396	9217	8096	7856	1143	1156	157	205
30 TO 34	8039	7936	7008	6859	882	900	150	177
35 TO 44	12153	12170	10519	10459	1410	1460	223	252
45 TO 54	11761	12139	10362	10650	1215	1289	185	201
55 TO 64	9936	11011	8933	9871	890	1030	113	111
65 +	9643	14274	8736	12977	782	1173	125	124
TOTAL	109367	113258	94103	97324	13364	13931	1901	2003

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1980
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	10588	10041	8582	8105	1710	1651	296	285
6 TO 13	14188	13568	11647	11088	2196	2144	345	336
14 TO 15	3908	3753	3240	3100	588	576	80	76
16 TO 17	4241	4065	3547	3390	615	600	79	75
18 TO 19	4385	4220	3685	3534	618	608	82	78
20 TO 21	4366	4228	3681	3547	608	602	77	79
22 TO 24	6501	6319	5507	5318	877	872	118	129
25 TO 29	10056	9825	8592	8310	1278	1288	186	227
30 TO 34	9037	8890	7826	7618	1029	1048	182	224
35 TO 44	13281	13294	11512	11432	1512	1563	257	299
45 TO 54	11457	11748	10017	10208	1235	1306	205	234
55 TO 64	10341	11436	9268	10210	940	1085	133	141
65 +	10186	15194	9219	13784	835	1270	133	141
TOTAL	112535	116580	96322	99644	14041	14613	2171	2323

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1985
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	11896	11288	9693	9168	1862	1790	341	330
6 TO 13	13831	13166	11173	10602	2234	2151	424	413
14 TO 15	3798	3627	3116	2964	586	568	96	94
16 TO 17	3650	3501	3004	2869	556	544	89	88
18 TO 19	3771	3630	3105	2979	571	559	95	92
20 TO 21	4135	3990	3429	3300	611	600	94	89
22 TO 24	6543	6352	5469	5284	927	917	146	151
25 TO 29	10937	10697	9214	8940	1484	1484	239	273
30 TO 34	10125	9925	8619	8361	1277	1293	229	272
35 TO 44	16258	16166	14083	13861	1837	1887	338	418
45 TO 54	11353	11627	9843	9996	1273	1351	237	280
55 TO 64	10663	11684	9474	10317	1021	1168	168	199
65 +	11104	16739	10025	15121	926	1438	154	180
TOTAL	118063	122391	100245	103763	15165	15748	2653	2880

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1990
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	12462	11806	10093	9540	1986	1893	384	373
6 TO 13	15543	14755	12575	11906	2470	2362	498	486
14 TO 15	3317	3155	2672	2538	534	513	110	105
16 TO 17	3307	3156	2652	2526	540	520	115	110
18 TO 19	3706	3547	2998	2863	588	569	119	114
20 TO 21	3735	3601	3054	2937	569	558	111	105
22 TO 24	5614	5450	4598	4443	845	835	170	172
25 TO 29	10736	10485	8919	8655	1535	1522	282	308
30 TO 34	10989	10786	9230	8984	1477	1483	282	319
35 TO 44	19016	18823	16318	15963	2270	2323	428	537
45 TO 54	12801	13112	11091	11247	1424	1511	287	354
55 TO 64	10256	11117	9001	9668	1053	1196	201	253
65 +	12098	18325	10885	16466	1033	1627	179	233
TOTAL	123581	128118	104089	107735	16325	16914	3167	3469

U.S. TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS: 1995
(1,000'S)

AGE	TOTAL		WHITE		BLACK		OTHER	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
0 TO 5	11514	10895	9185	8678	1931	1839	398	378
6 TO 13	16608	15754	13451	12735	2606	2488	551	531
14 TO 15	3913	3715	3145	2980	635	607	133	128
16 TO 17	3785	3602	3025	2874	619	593	140	136
18 TO 19	3500	3347	2796	2672	565	543	139	132
20 TO 21	3335	3191	2660	2546	538	520	137	125
22 TO 24	5409	5229	4336	4179	860	839	213	211
25 TO 29	9412	9195	7679	7452	1410	1400	323	342
30 TO 34	10780	10571	8931	8697	1526	1522	324	351
35 TO 44	20901	20685	17684	17307	2700	2753	517	626
45 TO 54	15634	15916	13543	13612	1724	1823	367	481
55 TO 64	10175	11015	8859	9480	1089	1243	227	292
65 +	12712	19365	11372	17265	1130	1796	211	304
TOTAL	127677	132479	106666	110477	17333	17966	3679	4036

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	19185	0	14	19171
6 TO 13	29648	0	67	29581
14 TO 15	8402	0	35	8367
16 TO 17	8594	35	36	8523
18 TO 19	8587	308	20	8259
20 TO 21	8445	405	18	8024
22 TO 24	12087	408	22	11658
25 TO 29	18613	397	34	18182
30 TO 34	15975	249	30	15697
35 TO 44	24323	287	45	23990
45 TO 54	23900	41	80	23780
55 TO 64	20947	1	99	20847
65 +	23917	0	1098	22818
TOTAL	222625	2131	1600	218894

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	15555	0	12	15543
6 TO 13	24554	0	56	24498
14 TO 15	7050	0	29	7020
16 TO 17	7241	29	30	7181
18 TO 19	7255	250	17	6988
20 TO 21	7150	326	15	6810
22 TO 24	10296	321	18	9957
25 TO 29	15952	323	30	15599
30 TO 34	13867	211	26	13630
35 TO 44	20978	244	39	20695
45 TO 54	21012	37	70	20904
55 TO 64	18804	1	89	18714
65 +	21713	0	997	20716
TOTAL	191427	1742	1429	188256

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	3119	0	2	3116
6 TO 13	4492	0	10	4482
14 TO 15	1211	0	6	1206
16 TO 17	1211	4	6	1202
18 TO 19	1192	49	2	1140
20 TO 21	1156	71	2	1083
22 TO 24	1586	76	2	1508
25 TO 29	2299	61	4	2234
30 TO 34	1782	29	4	1749
35 TO 44	2870	35	6	2829
45 TO 54	2504	2	8	2494
55 TO 64	1920	0	9	1911
65 +	1955	0	92	1863
TOTAL	27295	327	153	26815

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	512	0	0	511
6 TO 13	602	0	2	601
14 TO 15	142	0	0	141
16 TO 17	142	2	0	139
18 TO 19	141	9	0	132
20 TO 21	139	8	0	131
22 TO 24	204	11	0	193
25 TO 29	362	13	0	349
30 TO 34	327	9	0	317
35 TO 44	475	9	0	466
45 TO 54	386	2	2	382
55 TO 64	224	0	2	223
65 +	249	0	10	239
TOTAL	3904	62	19	3824

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	9825	0	7	9818
6 TO 13	15141	0	34	15107
14 TO 15	4289	0	18	4271
16 TO 17	4383	33	18	4332
18 TO 19	4373	291	10	4072
20 TO 21	4298	375	9	3915
22 TO 24	6129	372	11	5747
25 TO 29	9396	371	17	9008
30 TO 34	8039	244	15	7781
35 TO 44	12153	284	22	11846
45 TO 54	11761	40	39	11682
55 TO 64	9936	1	47	9888
65 +	9643	0	400	9243
TOTAL	109367	2011	648	106708

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	9360	0	7	9353
6 TO 13	14507	0	33	14474
14 TO 15	4113	0	17	4096
16 TO 17	4211	2	18	4191
18 TO 19	4214	17	10	4187
20 TO 21	4147	30	9	4109
22 TO 24	5958	36	11	5911
25 TO 29	9217	26	17	9174
30 TO 34	7936	5	15	7916
35 TO 44	12170	3	23	12144
45 TO 54	12139	1	41	12098
55 TO 64	11011	0	52	10959
65 +	14274	0	698	13575
TOTAL	113258	120	952	112186

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (WHITE MALES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	7982	0	6	7976
6 TO 13	12569	0	29	12540
14 TO 15	3605	0	15	3590
16 TO 17	3702	28	15	3658
18 TO 19	3702	236	8	3457
20 TO 21	3648	302	7	3339
22 TO 24	5241	293	9	4939
25 TO 29	8096	304	15	7777
30 TO 34	7008	207	13	6788
35 TO 44	10519	241	19	10259
45 TO 54	10362	36	34	10291
55 TO 64	8933	1	42	8890
65 +	8736	0	363	8373
TOTAL	94103	1648	577	91878

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (WHITE FEMALES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	7573	0	6	7567
6 TO 13	11985	0	27	11958
14 TO 15	3445	0	14	3430
16 TO 17	3539	1	15	3523
18 TO 19	3553	14	9	3531
20 TO 21	3502	24	8	3471
22 TO 24	5055	28	9	5018
25 TO 29	7856	19	15	7822
30 TO 34	6859	4	13	6842
35 TO 44	10459	3	20	10436
45 TO 54	10650	1	36	10613
55 TO 64	9871	0	47	9824
65 +	12977	0	634	12343
TOTAL	97324	94	852	96378

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (BLACK MALES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	1581	0	1	1580
6 TO 13	2267	0	5	2262
14 TO 15	611	0	3	609
16 TO 17	610	4	3	603
18 TO 19	600	47	1	551
20 TO 21	581	66	1	514
22 TO 24	793	70	1	722
25 TO 29	1143	56	2	1085
30 TO 34	882	28	2	852
35 TO 44	1410	34	3	1373
45 TO 54	1215	2	4	1209
55 TO 64	890	0	4	886
65 +	782	0	33	749
TOTAL	13364	307	63	12994

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (BLACK FEMALES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	1538	0	1	1536
6 TO 13	2225	0	5	2220
14 TO 15	600	0	3	597
16 TO 17	601	0	3	599
18 TO 19	592	2	1	589
20 TO 21	575	5	1	569
22 TO 24	793	6	1	786
25 TO 29	1156	5	2	1149
30 TO 34	900	1	2	897
35 TO 44	1460	1	3	1456
45 TO 54	1289	0	4	1285
55 TO 64	1030	0	5	1025
65 +	1173	0	59	1114
TOTAL	13931	20	90	13821

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	262	0	0	262
6 TO 13	305	0	1	305
14 TO 15	73	0	0	72
16 TO 17	72	1	0	70
18 TO 19	72	8	0	64
20 TO 21	69	7	0	62
22 TO 24	95	9	0	86
25 TO 29	157	11	0	146
30 TO 34	150	9	0	140
35 TO 44	223	9	0	214
45 TO 54	185	2	1	182
55 TO 64	113	0	1	113
65 +	125	0	5	121
TOTAL	1901	56	9	1836

1977 U.S. POPULATION: TOTAL, ARMED FORCES, INSTITUTIONAL, AND CIVILIAN NONINSTITUTIONAL (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL POPULATION INCLUDING ARMED FORCES OVERSEAS	ARMED FORCES	INSTITUTIONAL POPULATION	CIVILIAN NONINSTITUTIONAL POPULATION
0 TO 5	250	0	0	249
6 TO 13	297	0	1	296
14 TO 15	69	0	0	69
16 TO 17	70	1	0	69
18 TO 19	69	1	0	68
20 TO 21	70	1	0	69
22 TO 24	109	2	0	107
25 TO 29	205	2	0	203
30 TO 34	177	0	0	177
35 TO 44	252	0	0	252
45 TO 54	201	0	1	200
55 TO 64	111	0	1	110
65 +	124	0	5	118
TOTAL	2003	6	10	1988

APPENDIX B

EDUCATIONAL ENROLLMENT

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NUMBER OF PERSONS ENROLLED IN EDUCATION
IN 1977, 1980, 1985, 1990, 1995:

Total: all races and sexes 26
Whites: both sexes. 31
Blacks: both sexes 36
Other races: both sexes 41
Total males: all races. 46
Total females: all races 51
White males 56
White females 61
Black males 66
Black females 71
Males: other races 76
Females: other races 81

METHODOLOGY

This appendix contains five sets of educational enrollment tables -- one set each for 1977, 1980, 1985, 1990, and 1995. In each of the sets, six tables are race- and sex-specific for white males, white females, black males, black females, males: other races, and females: other races. The other six tables group all males, all females, all whites, all blacks, other races: both sexes, and the total of all races and sexes. Each table shows the number of people in certain age cohorts participating in preschool, elementary school, high school, and college or not enrolled in school, having either graduated or not graduated from high school. All these categories summed together yield the total civilian noninstitutional population listed in the first column.

For 1977 the proportions of the total cohort population enrolled in some level of school or not enrolled in school are based upon the Census Bureau's P-20 series estimates of actual 1977 enrollment. The estimates have been adjusted for census undercount. Projection of educational enrollment for 1980 and beyond reflect both the adjustments to total civilian noninstitutionalized population discussed in Appendix A and judgmental adjustments of educational participation rates to reflect expected changes in enrollment proportions up to 1995.

These judgmental adjustments include:

- A substantial rise in preschool and kindergarten enrollment proportions for all races and sexes in the 3- to 5-year-old age group. This proportion is expected to rise from about 50 percent in 1977 to 75 percent in 1995 due to higher labor force participation rates of parents.
- A slight rise in the college enrollment proportions of white and black males and females in the 20- to 21-year-old age group. These proportions are expected to rise 2 percentage points for white

males, 5 percentage points for white and black females, and 6 percentage points for black males between 1977 and 1995.

- A slight rise in the college enrollment proportions of white and black males and females in the 22- to 24-year-old age group. These proportions are expected to rise 1 percentage point for white and black males, 4 percentage points for white females, and 3 percentage points for black females between 1977 and 1995.
- A slight rise in white college enrollment proportions in the 25- to 29-year-old age group. These proportions are expected to rise 1 percentage point for white males and 2.5 percentage points for white females.
- A decline of about 3 percentage points in black male and female college enrollment proportions in the 30- to 34-year-old age group between 1977 and 1995. Because black college enrollment will rise in the younger age cohorts, this phenomenon of college enrollment "catching up" for the 30- to 34-year-old blacks should decline by 1995.
- A decline in the proportion of dropouts over 35 of all races and sexes by 1995. Between 1977 and 1995, these proportions are expected to decline 6 percentage points for whites and members of other races (both sexes) and to fall 9 percentage points for black males and 11 percentage points for black females.

1977 U.S. ENROLLMENT IN EDUCATION: (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT IN SCHOOL: NOT HIGH SCHOOL GRADUATE
0 TO 5	19174	4778	331	0	0	0	14065
6 TO 13	29584	248	28796	352	0	0	187
14 TO 15	8369	0	935	7301	6	7	119
16 TO 17	8525	0	32	7274	270	216	735
18 TO 19	8257	0	1	869	2944	3066	1377
20 TO 21	8020	0	0	113	2429	4211	1267
22 TO 24	11637	0	0	44	1874	7928	1791
25 TO 29	18157	0	0	62	1913	13568	2614
30 TO 34	15684	0	0	48	1027	11734	2875
35 +	91455	0	0	105	1380	49431	40536
TOTAL	218862	5026	30111	16152	11843	90161	65566

1980 U.S. ENROLLMENT IN EDUCATION: (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	20620	5405	336	0	0	0	14880
6 TO 13	27695	232	26955	332	0	0	174
14 TO 15	7631	0	857	6651	6	6	110
16 TO 17	8250	0	32	7039	262	208	709
18 TO 19	8318	0	1	881	2965	3081	1389
20 TO 21	8217	0	0	117	2535	4323	1242
22 TO 24	12431	0	0	47	2069	8518	1799
25 TO 29	19443	0	0	67	2094	14474	2809
30 TO 34	17642	0	0	54	1145	13201	3243
35 +	95267	0	0	111	1440	52849	40863
TOTAL	225514	5637	28198	15282	12516	96660	67218

1985 U.S. ENROLLMENT IN EDUCATION: (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	23172	6835	390	0	0	0	15943
6 TO 13	26938	225	26217	325	0	0	171
14 TO 15	7395	0	835	6440	7	6	108
16 TO 17	7099	0	28	6059	226	179	610
18 TO 19	7114	0	1	770	2530	2622	1191
20 TO 21	7749	0	0	112	2519	3942	1176
22 TO 24	12505	0	0	47	2176	8464	1816
25 TO 29	21193	0	0	74	2358	15679	3082
30 TO 34	19758	0	0	59	1364	14767	3667
35 +	103802	0	0	124	1571	60072	42039
TOTAL	236725	7060	27489	13992	12651	105731	69803

1990 U.S. ENROLLMENT IN EDUCATION: (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	ENROLLED IN SCHOOL					NOT IN SCHOOL	
	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	24256	7881	417	0	0	0	15959
6 TO 13	30232	252	29423	364	0	0	191
14 TO 15	6447	0	732	5607	7	5	95
16 TO 17	6412	0	26	5474	207	161	547
18 TO 19	6969	0	1	764	2479	2558	1168
20 TO 21	6961	0	0	101	2380	3424	1056
22 TO 24	10674	0	0	42	1943	7128	1559
25 TO 29	20781	0	0	75	2392	15277	3039
30 TO 34	21484	0	0	65	1346	16060	4013
35 +	113626	0	0	135	1720	68447	43318
TOTAL	247842	8133	30618	12608	12474	113060	70945

1995 U.S. ENROLLMENT IN EDUCATION: (TOTAL: ALL SEXES AND RACES)
(1,000'S)

AGE	ENROLLED IN SCHOOL					NOT IN SCHOOL	
	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	22399	8124	399	0	0	0	13874
6 TO 13	32294	271	31430	389	0	0	205
14 TO 15	7597	0	861	6606	8	6	114
16 TO 17	7334	0	30	6262	235	183	624
18 TO 19	6563	0	1	725	2337	2401	1098
20 TO 21	6154	0	0	93	2130	2996	937
22 TO 24	10252	0	0	42	1932	6774	1504
25 TO 29	18171	0	0	67	2108	13262	2672
30 TO 34	21060	0	0	65	1323	15720	3956
35 +	124385	0	0	150	1887	74806	47542
TOTAL	256209	8395	32740	14380	12020	116148	72526

1977 U.S. ENROLLMENT IN EDUCATION: (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	15545	3840	249	0	0	0	11455
6 TO 13	24499	221	23849	280	0	0	148
14 TO 15	7021	0	723	6190	3	7	98
16 TO 17	7183	0	22	6108	225	193	636
18 TO 19	6987	0	0	582	2599	2696	1110
20 TO 21	6809	0	0	72	2086	3662	989
22 TO 24	9946	0	0	30	1588	6930	1397
25 TO 29	15587	0	0	46	1620	11893	2028
30 TO 34	13622	0	0	41	844	10468	2268
35 +	81051	0	0	80	1189	45554	34228
TOTAL	188250	4061	24850	13422	10154	81403	54357

1980 U.S. ENROLLMENT IN EDUCATION: (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	16679	4378	253	0	0	0	12048
6 TO 13	22684	205	22082	260	0	0	136
14 TO 15	6315	0	650	5567	3	6	88
16 TO 17	6889	0	21	5857	216	185	609
18 TO 19	6992	0	0	583	2601	2696	1111
20 TO 21	6930	0	0	73	2159	3742	956
22 TO 24	10516	0	0	31	1734	7379	1372
25 TO 29	16556	0	0	50	1764	12591	2152
30 TO 34	15214	0	0	46	944	11692	2533
35 +	84170	0	0	83	1236	48443	34409
TOTAL	192945	4583	23014	12542	10657	86734	55414

1985 U.S. ENROLLMENT IN EDUCATION: (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	18849	5549	294	0	0	0	13004
6 TO 13	21725	196	21149	249	0	0	131
14 TO 15	6055	0	624	5338	3	6	84
16 TO 17	5830	0	18	4958	183	157	516
18 TO 19	5858	0	0	489	2179	2259	931
20 TO 21	6433	0	0	68	2111	3368	887
22 TO 24	10445	0	0	31	1801	7250	1362
25 TO 29	17804	0	0	54	1968	13469	2314
30 TO 34	16748	0	0	49	1039	12871	2788
35 +	91136	0	0	91	1336	54547	35163
TOTAL	200883	5745	22093	11319	10620	93927	57180

1990 U.S. ENROLLMENT IN EDUCATION: (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	19621	6395	314	0	0	0	12912
6 TO 13	24427	220	23779	279	0	0	147
14 TO 15	5189	0	535	4574	3	5	72
16 TO 17	5137	0	16	4368	162	138	455
18 TO 19	5638	0	0	470	2098	2174	896
20 TO 21	5696	0	0	60	1964	2888	784
22 TO 24	8735	0	0	26	1570	5999	1139
25 TO 29	17226	0	0	52	1981	12954	2239
30 TO 34	17981	0	0	54	1115	13819	2993
35 +	98948	0	0	99	1449	61492	35907
TOTAL	208598	6615	24653	9973	10342	99469	57544

1995 U.S. ENROLLMENT IN EDUCATION: (WHITES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	17852	6503	296	0	0	0	11052
6 TO 13	26130	236	25438	299	0	0	158
14 TO 15	6100	0	628	5377	3	6	86
16 TO 17	5855	0	18	4979	184	157	518
18 TO 19	5244	0	0	437	1950	2023	833
20 TO 21	4913	0	0	52	1693	2491	677
22 TO 24	8211	0	0	24	1518	5598	1070
25 TO 29	14789	0	0	44	1775	11047	1923
30 TO 34	17396	0	0	53	1079	13369	2897
35 +	107355	0	0	106	1572	66707	38970
TOTAL	213845	6739	26389	11362	9774	101398	58184

1977 U.S. ENROLLMENT IN EDUCATION: (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	3119	797	68	0	0	0	2255
6 TO 13	4482	20	4367	60	0	0	34
14 TO 15	1207	0	193	999	0	0	14
16 TO 17	1204	0	9	1047	38	19	92
18 TO 19	1137	0	1	267	281	338	250
20 TO 21	1078	0	0	38	281	494	265
22 TO 24	1496	0	0	11	219	897	370
25 TO 29	2221	0	0	6	247	1429	540
30 TO 34	1746	0	0	4	153	1031	558
35 +	9098	0	0	23	167	3151	5755
TOTAL	26788	817	4643	2450	1386	7359	10133

1980 U.S. ENROLLMENT IN EDUCATION: (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	3361	872	68	0	0	0	2421
6 TO 13	4333	20	4222	58	0	0	33
14 TO 15	1160	0	186	960	0	0	14
16 TO 17	1206	0	10	1049	38	19	92
18 TO 19	1170	0	1	275	289	347	258
20 TO 21	1136	0	0	41	306	518	271
22 TO 24	1673	0	0	12	251	1014	397
25 TO 29	2481	0	0	6	276	1596	603
30 TO 34	2024	0	0	4	164	1208	648
35 +	9569	0	0	24	176	3536	5830
TOTAL	28113	892	4492	2424	1500	8238	10567

1985 U.S. ENROLLMENT IN EDUCATION: (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	3651	1087	77	0	0	0	2485
6 TO 13	4376	20	4264	59	0	0	33
14 TO 15	1150	0	185	951	0	0	14
16 TO 17	1091	0	9	949	34	17	84
18 TO 19	1074	0	1	253	264	319	237
20 TO 21	1139	0	0	41	325	501	272
22 TO 24	1768	0	0	12	273	1063	419
25 TO 29	2883	0	0	7	321	1854	701
30 TO 34	2514	0	0	5	178	1527	804
35 +	10709	0	0	28	198	4362	6122
TOTAL	30355	1107	4541	2300	1593	9643	11171

1990 U.S. ENROLLMENT IN EDUCATION: (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	3880	1244	82	0	0	0	2554
6 TO 13	4823	21	4700	65	0	0	37
14 TO 15	1043	0	168	862	0	0	12
16 TO 17	1051	0	8	914	33	16	81
18 TO 19	1101	0	1	259	271	327	243
20 TO 21	1053	0	0	37	316	448	252
22 TO 24	1605	0	0	11	255	957	381
25 TO 29	2973	0	0	7	331	1912	723
30 TO 34	2905	0	0	6	175	1796	929
35 +	12227	0	0	31	226	5441	6528
TOTAL	32661	1265	4963	2188	1607	10897	11740

1995 U.S. ENROLLMENT IN EDUCATION: (BLACKS: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	3771	1346	82	0	0	0	2342
6 TO 13	5086	23	4956	68	0	0	38
14 TO 15	1238	0	199	1023	0	0	14
16 TO 17	1203	0	10	1046	37	18	92
18 TO 19	1052	0	1	248	259	313	231
20 TO 21	984	0	0	35	315	399	235
22 TO 24	1624	0	0	12	267	961	385
25 TO 29	2725	0	0	7	303	1752	663
30 TO 34	2995	0	0	6	180	1852	958
35 +	14033	0	0	37	260	6244	7492
TOTAL	34711	1369	5252	2478	1621	11539	12450

1977 U.S. ENROLLMENT IN EDUCATION: (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	510	141	14	0	0	0	355
6 TO 13	603	7	580	12	0	0	5
14 TO 15	141	0	19	112	3	0	7
16 TO 17	138	0	1	119	7	4	7
18 TO 19	133	0	0	20	64	32	17
20 TO 21	133	0	0	3	62	55	13
22 TO 24	195	0	0	3	67	101	24
25 TO 29	349	0	0	10	46	246	46
30 TO 34	316	0	0	3	30	235	49
35 +	1306	0	0	2	24	726	553
TOTAL	3824	148	618	280	303	1399	1076

1980 U.S. ENROLLMENT IN EDUCATION: (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	580	155	15	0	0	0	411
6 TO 13	678	7	651	14	0	0	5
14 TO 15	156	0	21	124	3	0	8
16 TO 17	155	0	1	133	8	4	8
18 TO 19	156	0	0	23	75	38	20
20 TO 21	151	0	0	3	70	63	15
22 TO 24	242	0	0	4	84	125	30
25 TO 29	406	0	0	11	54	287	54
30 TO 34	404	0	0	4	37	301	62
35 +	1528	0	0	4	28	870	624
TOTAL	4456	162	692	316	359	1688	1237

1985 U.S. ENROLLMENT IN EDUCATION: (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	672	199	19	0	0	0	454
6 TO 13	837	9	804	17	0	0	7
14 TO 15	190	0	26	151	4	0	10
16 TO 17	178	0	1	152	9	5	10
18 TO 19	182	0	0	28	87	44	23
20 TO 21	177	0	0	3	83	73	17
22 TO 24	292	0	0	4	102	151	35
25 TO 29	506	0	0	13	69	356	67
30 TO 34	496	0	0	5	47	369	75
35 +	1957	0	0	5	37	1163	754
TOTAL	5487	208	855	373	438	2161	1452

1990 U.S. ENROLLMENT IN EDUCATION: (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	755	242	21	0	0	0	493
6 TO 13	982	11	944	20	0	0	7
14 TO 15	215	0	29	171	4	0	11
16 TO 17	224	0	2	192	12	7	11
18 TO 19	230	0	0	35	110	57	29
20 TO 21	212	0	0	4	100	88	20
22 TO 24	334	0	0	5	118	172	39
25 TO 29	582	0	0	16	80	411	77
30 TO 34	598	0	0	5	56	445	91
35 +	2451	0	0	5	45	1514	883
TOTAL	6583	253	1002	447	525	2694	1661

1995 U.S. ENROLLMENT IN EDUCATION: (OTHER RACES: BOTH SEXES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	776	275	21	0	0	0	480
6 TO 13	1078	12	1036	22	0	0	9
14 TO 15	259	0	34	206	5	0	14
16 TO 17	276	0	2	237	14	8	14
18 TO 19	267	0	0	40	128	65	34
20 TO 21	257	0	0	6	122	106	25
22 TO 24	417	0	0	6	147	215	49
25 TO 29	657	0	0	16	90	463	86
30 TO 34	669	0	0	6	64	499	101
35 +	2997	0	0	7	55	1855	1080
TOTAL	7653	287	1099	540	625	3211	1892

1977 U.S. ENROLLMENT IN EDUCATION: (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	9819	2440	144	0	0	0	7234
6 TO 13	15108	135	14703	156	0	0	113
14 TO 15	4272	0	584	3630	0	0	58
16 TO 17	4333	0	27	3758	113	76	359
18 TO 19	4068	0	1	540	1429	1375	723
20 TO 21	3912	0	0	60	1288	1895	669
22 TO 24	5726	0	0	30	1094	3726	876
25 TO 29	8982	0	0	26	1109	6683	1164
30 TO 34	7767	0	0	7	541	5846	1373
35 +	42612	0	0	41	545	21785	20241
TOTAL	106599	2575	15464	8243	6119	41386	32810

1980 U.S. ENROLLMENT IN EDUCATION: (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL				NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-GARTEN	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	10584	2772	146	0	0	0	7666
6 TO 13	14156	126	13776	147	0	0	105
14 TO 15	3893	0	535	3305	0	0	53
16 TO 17	4202	0	28	3645	110	73	346
18 TO 19	4133	0	1	551	1451	1394	736
20 TO 21	4033	0	0	63	1350	1948	672
22 TO 24	6159	0	0	32	1198	3985	945
25 TO 29	9676	0	0	29	1212	7175	1260
30 TO 34	8793	0	0	8	607	6622	1557
35 +	44417	0	0	43	570	23315	20489
TOTAL	110046	2898	14491	7818	6498	44512	33829

1985 U.S. ENROLLMENT IN EDUCATION: (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	11890	3506	170	0	0	0	8212
6 TO 13	13800	122	13430	144	0	0	103
14 TO 15	3783	0	523	3209	0	0	52
16 TO 17	3613	0	24	3135	95	64	297
18 TO 19	3520	0	1	481	1230	1180	628
20 TO 21	3803	0	0	61	1313	1793	637
22 TO 24	6200	0	0	32	1235	3982	952
25 TO 29	10555	0	0	31	1342	7793	1389
30 TO 34	9878	0	0	8	671	7433	1765
35 +	48484	0	0	48	622	26551	21262
TOTAL	115526	3628	14153	7144	6508	48796	35297

1990 U.S. ENROLLMENT IN EDUCATION: (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	12457	4046	182	0	0	0	8229
6 TO 13	15509	137	15093	162	0	0	116
14 TO 15	3303	0	459	2798	0	0	45
16 TO 17	3270	0	22	2838	88	58	266
18 TO 19	3456	0	1	480	1205	1154	616
20 TO 21	3404	0	0	55	1213	1566	571
22 TO 24	5271	0	0	27	1077	3357	809
25 TO 29	10355	0	0	31	1344	7607	1375
30 TO 34	10742	0	0	9	715	8087	1932
35 +	53223	0	0	51	685	30345	22137
TOTAL	120990	4183	15761	6447	6327	52174	36096

1995 U.S. ENROLLMENT IN EDUCATION: (TOTAL MALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL				NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	11509	4172	174	0	0	0	7162
6 TO 13	16574	147	16130	173	0	0	124
14 TO 15	3897	0	541	3301	0	0	54
16 TO 17	3747	0	26	3252	100	66	304
18 TO 19	3250	0	1	457	1134	1081	577
20 TO 21	3005	0	0	52	1084	1364	506
22 TO 24	5067	0	0	26	1047	3217	777
25 TO 29	9033	0	0	27	1175	6622	1208
30 TO 34	10533	0	0	9	704	7919	1904
35 +	58437	0	0	58	758	33271	24352
TOTAL	125052	4319	16876	7351	6002	53540	36968

1977 U.S. ENROLLMENT IN EDUCATION: (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	9355	2338	187	0	0	0	6831
6 TO 13	14476	113	14093	196	0	0	74
14 TO 15	4097	0	351	3671	6	7	61
16 TO 17	4192	0	5	3516	157	140	376
18 TO 19	4189	0	0	329	1515	1691	654
20 TO 21	4108	0	0	53	1141	2316	598
22 TO 24	5911	0	0	14	780	4202	915
25 TO 29	9175	0	0	36	804	6885	1450
30 TO 34	7917	0	0	41	486	5888	1502
35 +	48843	0	0	64	835	27646	20295
TOTAL	112263	2451	14647	7909	5724	48775	32756

1980 U.S. ENROLLMENT IN EDUCATION: (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	10036	2633	190	0	0	0	7214
6 TO 13	13539	106	13179	185	0	0	69
14 TO 15	3738	0	322	3346	6	6	57
16 TO 17	4048	0	4	3394	152	135	363
18 TO 19	4185	0	0	330	1514	1687	653
20 TO 21	4184	0	0	54	1185	2375	570
22 TO 24	6272	0	0	15	871	4533	854
25 TO 29	9767	0	0	38	882	7299	1549
30 TO 34	8849	0	0	46	538	6579	1686
35 +	50850	0	0	68	870	29534	20374
TOTAL	115468	2739	13707	7464	6018	52148	33389

1985 U.S. ENROLLMENT IN EDUCATION: (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	11282	3329	220	0	0	0	7731
6 TO 13	13138	103	12787	181	0	0	68
14 TO 15	3612	0	312	3231	7	6	56
16 TO 17	3486	0	4	2924	131	115	313
18 TO 19	3594	0	0	289	1300	1442	563
20 TO 21	3946	0	0	51	1206	2149	539
22 TO 24	6305	0	0	15	941	4482	864
25 TO 29	10638	0	0	43	1016	7886	1693
30 TO 34	9880	0	0	51	593	7334	1902
35 +	55318	0	0	76	949	33521	20777
TOTAL	121199	3432	13336	6848	6143	56935	34506

1990 U.S. ENROLLMENT IN EDUCATION: (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	11799	3835	235	0	0	0	7730
6 TO 13	14723	115	14330	202	0	0	75
14 TO 15	3144	0	273	2809	7	5	50
16 TO 17	3142	0	4	2636	119	103	281
18 TO 19	3513	0	0	284	1274	1404	552
20 TO 21	3557	0	0	46	1167	1858	485
22 TO 24	5403	0	0	15	866	3771	750
25 TO 29	10426	0	0	44	1048	7670	1664
30 TO 34	10742	0	0	56	631	7973	2081
35 +	60403	0	0	84	1035	38102	21181
TOTAL	126852	3950	14857	6161	6147	60886	34849

1995 U.S. ENROLLMENT IN EDUCATION: (TOTAL FEMALES: ALL RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	10890	3952	225	0	0	0	6712
6 TO 13	15720	124	15300	216	0	0	81
14 TO 15	3700	0	320	3305	8	6	60
16 TO 17	3587	0	4	3010	135	117	320
18 TO 19	3313	0	0	268	1203	1320	521
20 TO 21	3149	0	0	41	1046	1632	431
22 TO 24	5185	0	0	16	885	3557	727
25 TO 29	9138	0	0	40	993	6640	1464
30 TO 34	10527	0	0	56	619	7801	2052
35 +	65948	0	0	92	1129	41535	23190
TOTAL	131157	4076	15864	7029	6018	62608	35558

1977 U.S. ENROLLMENT IN EDUCATION: (WHITE MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT IN SCHOOL: NOT HIGH SCHOOL GRADUATE
0 TO 5	7977	1975	108	0	0	0	5893
6 TO 13	12541	125	12202	125	0	0	88
14 TO 15	3590	0	445	3095	0	0	50
16 TO 17	3659	0	18	3165	91	70	315
18 TO 19	3455	0	0	349	1299	1220	587
20 TO 21	3339	0	0	30	1125	1663	521
22 TO 24	4928	0	0	25	931	3257	715
25 TO 29	7764	0	0	23	955	5916	870
30 TO 34	6780	0	0	7	447	5227	1098
35 +	37777	0	0	37	454	20022	17265
TOTAL	91810	2100	12773	6856	5302	37375	27402

1980 U.S. ENROLLMENT IN EDUCATION: (WHITE MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	8578	2248	110	0	0	0	6220
6 TO 13	11621	116	11307	116	0	0	81
14 TO 15	3227	0	400	2782	0	0	45
16 TO 17	3515	0	18	3040	88	67	302
18 TO 19	3489	0	0	352	1312	1232	593
20 TO 21	3422	0	0	31	1170	1704	517
22 TO 24	5240	0	0	26	1006	3448	760
25 TO 29	8295	0	0	25	1037	6304	929
30 TO 34	7634	0	0	8	504	5886	1237
35 +	39282	0	0	39	472	21331	17442
TOTAL	94303	2364	11835	6419	5589	39972	28126

1985 U.S. ENROLLMENT IN EDUCATION: (WHITE MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	9687	2851	128	0	0	0	6707
6 TO 13	11148	111	10847	111	0	0	78
14 TO 15	3103	0	385	2675	0	0	43
16 TO 17	2974	0	15	2573	74	57	256
18 TO 19	2910	0	0	294	1094	1027	495
20 TO 21	3171	0	0	29	1113	1551	479
22 TO 24	5202	0	0	26	1020	3402	754
25 TO 29	8915	0	0	27	1132	6758	998
30 TO 34	8426	0	0	8	556	6496	1365
35 +	42651	0	0	43	511	24098	17999
TOTAL	98187	2962	11375	5786	5500	43389	29174

1990 U.S. ENROLLMENT IN EDUCATION: (WHITE MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	10087	3287	137	0	0	0	6663
6 TO 13	12547	125	12208	125	0	0	88
14 TO 15	2661	0	330	2294	0	0	37
16 TO 17	2623	0	13	2269	66	50	226
18 TO 19	2805	0	0	283	1055	990	477
20 TO 21	2797	0	0	25	1007	1343	422
22 TO 24	4332	0	0	22	866	2816	628
25 TO 29	8622	0	0	26	1121	6510	966
30 TO 34	9037	0	0	9	596	6968	1464
35 +	46478	0	0	46	557	27282	18591
TOTAL	101989	3412	12688	5099	5268	45959	29562

1995 U.S. ENROLLMENT IN EDUCATION: (WHITE MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	9179	3343	129	0	0	0	5707
6 TO 13	13422	134	13060	134	0	0	94
14 TO 15	3132	0	388	2700	0	0	44
16 TO 17	2995	0	15	2591	75	57	258
18 TO 19	2602	0	0	263	978	919	442
20 TO 21	2404	0	0	22	865	1154	363
22 TO 24	4070	0	0	20	814	2645	590
25 TO 29	7384	0	0	22	960	5575	827
30 TO 34	8738	0	0	9	577	6737	1416
35 +	50610	0	0	50	608	29708	20244
TOTAL	104536	3477	13592	5811	4877	46795	29985

1977 U.S. ENROLLMENT IN EDUCATION: (WHITE FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	7568	1865	141	0	0	0	5562
6 TO 13	11958	96	11647	155	0	0	60
14 TO 15	3431	0	278	3095	3	7	48
16 TO 17	3524	0	4	2943	134	123	321
18 TO 19	3532	0	0	233	1300	1476	523
20 TO 21	3470	0	0	42	961	1999	468
22 TO 24	5018	0	0	5	657	3673	682
25 TO 29	7823	0	0	23	665	5977	1158
30 TO 34	6842	0	0	34	397	5241	1170
35 +	43274	0	0	43	735	25532	16963
TOTAL	96440	1961	12077	6566	4852	44028	26955

1980 U.S. ENROLLMENT IN EDUCATION: (WHITE FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	8101	2130	143	0	0	0	5828
6 TO 13	11063	89	10775	144	0	0	55
14 TO 15	3088	0	250	2785	3	6	43
16 TO 17	3374	0	3	2817	128	118	307
18 TO 19	3503	0	0	231	1289	1464	518
20 TO 21	3508	0	0	42	989	2038	439
22 TO 24	5276	0	0	5	728	3931	612
25 TO 29	8261	0	0	25	727	6287	1223
30 TO 34	7580	0	0	38	440	5806	1296
35 +	44888	0	0	44	764	27112	16967
TOTAL	98642	2219	11179	6123	5068	46762	27288

1985 U.S. ENROLLMENT IN EDUCATION: (WHITE FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL				NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	9162	2698	166	0	0	0	6297
6 TO 13	10577	85	10302	138	0	0	53
14 TO 15	2952	0	239	2663	3	6	41
16 TO 17	2856	0	3	2385	109	100	260
18 TO 19	2948	0	0	195	1085	1232	436
20 TO 21	3262	0	0	39	998	1817	408
22 TO 24	5243	0	0	5	781	3848	608
25 TO 29	8889	0	0	27	836	6711	1316
30 TO 34	8322	0	0	41	483	6375	1423
35 +	48485	0	0	48	825	30449	17164
TOTAL	102696	2783	10718	5533	5120	50538	28006

1990 U.S. ENROLLMENT IN EDUCATION: (WHITE FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT IN SCHOOL: NOT HIGH SCHOOL GRADUATE
0 TO 5	9534	3108	177	0	0	0	6249
6 TO 13	11880	95	11571	154	0	0	59
14 TO 15	2528	0	205	2280	3	5	35
16 TO 17	2514	0	3	2099	96	88	229
18 TO 19	2833	0	0	187	1043	1184	419
20 TO 21	2899	0	0	35	957	1545	362
22 TO 24	4403	0	0	4	704	3183	511
25 TO 29	8604	0	0	26	860	6444	1273
30 TO 34	8944	0	0	45	519	6851	1529
35 +	52470	0	0	53	892	34210	17316
TOTAL	106609	3203	11965	4874	5074	53510	27982

1995 U.S. ENROLLMENT IN EDUCATION: (WHITE FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	8673	3160	167	0	0	0	5345
6 TO 13	12708	102	12378	165	0	0	64
14 TO 15	2968	0	240	2677	3	6	42
16 TO 17	2860	0	3	2388	109	100	260
18 TO 19	2642	0	0	174	972	1104	391
20 TO 21	2509	0	0	30	828	1337	314
22 TO 24	4141	0	0	4	704	2953	480
25 TO 29	7405	0	0	22	815	5472	1096
30 TO 34	8658	0	0	44	502	6632	1481
35 +	56745	0	0	56	964	36999	18726
TOTAL	109309	3262	12797	5551	4897	54603	28199

1977 U.S. ENROLLMENT IN EDUCATION: (BLACK MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1581	390	29	0	0	0	1162
6 TO 13	2262	7	2205	27	0	0	23
14 TO 15	609	0	127	476	0	0	6
16 TO 17	604	0	8	532	19	3	42
18 TO 19	548	0	1	177	99	141	130
20 TO 21	509	0	0	28	130	211	140
22 TO 24	710	0	0	5	125	425	155
25 TO 29	1072	0	0	1	129	666	277
30 TO 34	847	0	0	0	77	511	259
35 +	4208	0	0	4	80	1435	2689
TOTAL	12950	397	2375	1245	659	3392	4883

1980 U.S. ENROLLMENT IN EDUCATION: (BLACK MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1710	443	29	0	0	0	1238
6 TO 13	2192	7	2137	26	0	0	22
14 TO 15	586	0	122	458	0	0	6
16 TO 17	608	0	9	536	19	3	42
18 TO 19	566	0	1	183	102	145	135
20 TO 21	539	0	0	30	143	220	146
22 TO 24	806	0	0	6	143	481	177
25 TO 29	1200	0	0	1	144	745	310
30 TO 34	980	0	0	0	82	598	300
35 +	4416	0	0	4	84	1599	2728
TOTAL	13603	450	2303	1239	717	3791	5104

1985 U.S. ENROLLMENT IN EDUCATION: (BLACK MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1861	554	33	0	0	0	1273
6 TO 13	2229	7	2173	27	0	0	22
14 TO 15	584	0	122	456	0	0	6
16 TO 17	549	0	8	484	17	3	38
18 TO 19	519	0	1	168	93	133	124
20 TO 21	543	0	0	30	154	212	147
22 TO 24	857	0	0	6	153	510	188
25 TO 29	1406	0	0	1	169	873	363
30 TO 34	1226	0	0	0	88	763	375
35 +	4945	0	0	5	94	1958	2888
TOTAL	14719	561	2342	1172	768	4452	5424

1990 U.S. ENROLLMENT IN EDUCATION: (BLACK MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1987	637	35	0	0	0	1315
6 TO 13	2465	7	2403	30	0	0	25
14 TO 15	532	0	111	415	0	0	5
16 TO 17	533	0	7	470	17	3	37
18 TO 19	536	0	1	173	96	138	128
20 TO 21	500	0	0	27	150	187	136
22 TO 24	775	0	0	5	139	460	170
25 TO 29	1457	0	0	1	175	905	376
30 TO 34	1427	0	0	0	86	905	437
35 +	5660	0	0	5	108	2434	3113
TOTAL	15872	644	2561	1122	771	5032	5742

1995 U.S. ENROLLMENT IN EDUCATION: (BLACK MALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1932	689	35	0	0	0	1207
6 TO 13	2602	8	2537	31	0	0	26
14 TO 15	633	0	132	494	0	0	6
16 TO 17	612	0	9	539	19	3	42
18 TO 19	513	0	1	166	92	132	122
20 TO 21	469	0	0	26	150	166	127
22 TO 24	789	0	0	6	142	469	173
25 TO 29	1332	0	0	1	160	827	344
30 TO 34	1476	0	0	0	89	936	452
35 +	6517	0	0	7	125	2802	3584
TOTAL	16875	697	2718	1266	777	5335	6083

1977 U.S. ENROLLMENT IN EDUCATION: (BLACK FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1538	407	39	0	0	0	1093
6 TO 13	2220	13	2162	33	0	0	11
14 TO 15	598	0	66	523	0	0	8
16 TO 17	600	0	1	515	19	16	50
18 TO 19	589	0	0	90	182	197	120
20 TO 21	569	0	0	10	151	283	125
22 TO 24	786	0	0	6	94	472	215
25 TO 29	1149	0	0	5	118	763	263
30 TO 34	899	0	0	4	76	520	299
35 +	4890	0	0	19	87	1716	3066
TOTAL	13838	420	2268	1205	727	3967	5250

1980 U.S. ENROLLMENT IN EDUCATION: (BLACK FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1651	429	39	0	0	0	1183
6 TO 13	2141	13	2085	32	0	0	11
14 TO 15	574	0	64	502	0	0	8
16 TO 17	598	0	1	513	19	16	50
18 TO 19	604	0	0	92	187	202	123
20 TO 21	597	0	0	11	163	298	125
22 TO 24	867	0	0	6	108	533	220
25 TO 29	1281	0	0	5	132	851	293
30 TO 34	1044	0	0	4	82	610	348
35 +	5153	0	0	20	92	1937	3102
TOTAL	14510	442	2189	1185	783	4447	5463

1985 U.S. ENROLLMENT IN EDUCATION: (BLACK FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1790	533	44	0	0	0	1212
6 TO 13	2147	13	2091	32	0	0	11
14 TO 15	566	0	63	495	0	0	8
16 TO 17	542	0	1	465	17	14	46
18 TO 19	555	0	0	85	171	186	113
20 TO 21	596	0	0	11	171	289	125
22 TO 24	911	0	0	6	120	553	231
25 TO 29	1477	0	0	6	152	981	338
30 TO 34	1288	0	0	5	90	764	429
35 +	5764	0	0	23	104	2404	3234
TOTAL	15636	546	2199	1128	825	5191	5747

1990 U.S. ENROLLMENT IN EDUCATION: (BLACK FEMALES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL				NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1893	607	47	0	0	0	1239
6 TO 13	2358	14	2297	35	0	0	12
14 TO 15	511	0	57	447	0	0	7
16 TO 17	518	0	1	444	16	13	44
18 TO 19	565	0	0	86	175	189	115
20 TO 21	553	0	0	10	166	261	116
22 TO 24	830	0	0	6	116	497	211
25 TO 29	1516	0	0	6	156	1007	347
30 TO 34	1478	0	0	6	89	891	492
35 +	6567	0	0	26	118	3007	3415
TOTAL	16789	621	2402	1066	836	5865	5998

1995 U.S. ENROLLMENT IN EDUCATION: (BLACK FEMALES)
(1,000'S)

AGE	ENROLLED IN SCHOOL					NOT IN SCHOOL	
	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	1839	657	47	0	0	0	1135
6 TO 13	2484	15	2419	37	0	0	12
14 TO 15	605	0	67	529	0	0	8
16 TO 17	591	0	1	507	18	15	50
18 TO 19	539	0	0	82	167	181	109
20 TO 21	515	0	0	9	165	233	108
22 TO 24	835	0	0	6	125	492	212
25 TO 29	1393	0	0	6	143	925	319
30 TO 34	1519	0	0	6	91	916	506
35 +	7516	0	0	30	135	3442	3908
TOTAL	17836	672	2534	1212	844	6204	6367

1977 U.S. ENROLLMENT IN EDUCATION: (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	261	75	7	0	0	0	179
6 TO 13	305	3	296	4	0	0	2
14 TO 15	73	0	12	59	0	0	2
16 TO 17	70	0	1	61	3	3	2
18 TO 19	65	0	0	14	31	14	6
20 TO 21	64	0	0	2	33	21	8
22 TO 24	88	0	0	0	38	44	6
25 TO 29	146	0	0	2	25	101	17
30 TO 34	140	0	0	0	17	108	16
35 +	627	0	0	0	11	328	287
TOTAL	1839	78	316	142	158	619	525

1980 U.S. ENROLLMENT IN EDUCATION: (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	296	81	7	0	0	0	208
6 TO 13	343	3	332	5	0	0	2
14 TO 15	80	0	13	65	0	0	2
16 TO 17	79	0	1	69	3	3	2
18 TO 19	78	0	0	16	37	17	8
20 TO 21	72	0	0	2	37	24	9
22 TO 24	113	0	0	0	49	56	8
25 TO 29	181	0	0	3	31	126	21
30 TO 34	179	0	0	0	21	138	20
35 +	719	0	0	0	14	385	319
TOTAL	2140	84	353	160	192	749	599

1985 U.S. ENROLLMENT IN EDUCATION: (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL				NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	342	101	9	0	0	0	232
6 TO 13	423	4	410	6	0	0	3
14 TO 15	96	0	16	78	0	0	3
16 TO 17	90	0	1	78	4	4	3
18 TO 19	91	0	0	19	43	20	9
20 TO 21	89	0	0	2	46	30	11
22 TO 24	141	0	0	0	62	70	10
25 TO 29	234	0	0	3	41	162	28
30 TO 34	226	0	0	0	27	174	25
35 +	888	0	0	0	17	495	375
TOTAL	2620	105	436	186	240	955	699

1990 U.S. ENROLLMENT IN EDUCATION: (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	383	122	10	0	0	0	251
6 TO 13	497	5	482	7	0	0	3
14 TO 15	110	0	18	89	0	0	3
16 TO 17	114	0	2	99	5	5	3
18 TO 19	115	0	0	24	54	26	11
20 TO 21	107	0	0	3	56	36	13
22 TO 24	164	0	0	0	72	81	11
25 TO 29	276	0	0	4	48	192	33
30 TO 34	278	0	0	0	33	214	31
35 +	1085	0	0	0	20	629	433
TOTAL	3129	127	512	226	288	1183	792

1995 U.S. ENROLLMENT IN EDUCATION: (MALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	398	140	10	0	0	0	248
6 TO 13	550	5	533	8	0	0	4
14 TO 15	132	0	21	107	0	0	4
16 TO 17	140	0	2	122	6	6	4
18 TO 19	135	0	0	28	64	30	13
20 TO 21	132	0	0	4	69	44	16
22 TO 24	208	0	0	0	91	103	14
25 TO 29	317	0	0	4	55	220	37
30 TO 34	319	0	0	0	38	246	36
35 +	1310	0	0	1	25	761	524
TOTAL	3641	145	566	274	348	1410	900

1977 U.S. ENROLLMENT IN EDUCATION: (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	249	66	7	0	0	0	176
6 TO 13	298	4	284	8	0	0	3
14 TO 15	68	0	7	53	3	0	5
16 TO 17	68	0	0	58	4	1	5
18 TO 19	68	0	0	6	33	18	11
20 TO 21	69	0	0	1	29	34	5
22 TO 24	107	0	0	3	29	57	18
25 TO 29	203	0	0	8	21	145	29
30 TO 34	176	0	0	3	13	127	33
35 +	679	0	0	2	13	398	266
TOTAL	1985	70	302	138	145	780	551

1980 U.S. ENROLLMENT IN EDUCATION: (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	284	74	8	0	0	0	203
6 TO 13	335	4	319	9	0	0	3
14 TO 15	76	0	8	59	3	0	6
16 TO 17	76	0	0	64	5	1	6
18 TO 19	78	0	0	7	38	21	12
20 TO 21	79	0	0	1	33	39	6
22 TO 24	129	0	0	4	35	69	22
25 TO 29	225	0	0	8	23	161	33
30 TO 34	225	0	0	4	16	163	42
35 +	809	0	0	4	14	485	305
TOTAL	2316	78	339	156	167	939	638

1985 U.S. ENROLLMENT IN EDUCATION: (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	330	98	10	0	0	0	222
6 TO 13	414	5	394	11	0	0	4
14 TO 15	94	0	10	73	4	0	7
16 TO 17	88	0	0	74	5	1	7
18 TO 19	91	0	0	9	44	24	14
20 TO 21	88	0	0	1	37	43	6
22 TO 24	151	0	0	4	40	81	25
25 TO 29	272	0	0	10	28	194	39
30 TO 34	270	0	0	5	20	195	50
35 +	1069	0	0	5	20	668	379
TOTAL	2867	103	419	187	198	1206	753

1990 U.S. ENROLLMENT IN EDUCATION: (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL					NOT IN SCHOOL	
		PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE		HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	372	120	11	0	0		0	242
6 TO 13	485	6	462	13	0		0	4
14 TO 15	105	0	11	82	4		0	8
16 TO 17	110	0	0	93	7		2	8
18 TO 19	115	0	0	11	56		31	18
20 TO 21	105	0	0	1	44		52	7
22 TO 24	170	0	0	5	46		91	28
25 TO 29	306	0	0	12	32		219	44
30 TO 34	320	0	0	5	23		231	60
35 +	1366	0	0	5	25		885	450
TOTAL	3454	126	490	221	237		1511	869

1995 U.S. ENROLLMENT IN EDUCATION: (FEMALES: OTHER RACES)
(1,000'S)

AGE	TOTAL CIVILIAN NONINSTITUTIONAL POPULATION	ENROLLED IN SCHOOL: PRE-SCHOOL AND KINDER-	ELEMENTARY SCHOOL	HIGH SCHOOL	COLLEGE	NOT IN SCHOOL: HIGH SCHOOL GRADUATE	NOT HIGH SCHOOL GRADUATE
0 TO 5	378	135	11	0	0	0	232
6 TO 13	528	7	503	14	0	0	5
14 TO 15	127	0	13	99	5	0	10
16 TO 17	136	0	0	115	8	2	10
18 TO 19	132	0	0	12	64	35	21
20 TO 21	125	0	0	2	53	62	9
22 TO 24	209	0	0	6	56	112	35
25 TO 29	340	0	0	12	35	243	49
30 TO 34	350	0	0	6	26	253	65
35 +	1687	0	0	6	30	1094	556
TOTAL	4012	142	533	266	277	1801	992

APPENDIX C

THE LABOR FORCE

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METHODOLOGY 88

U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE, 1977, 1980, 1985, 1990, AND 1995:

Number of Persons by Age, Race, and Sex 89

Percent Participation by Age, Race, and Sex 94

METHODOLOGY

This appendix contains both the number of persons in the civilian labor force and labor force participation rates for 1977, 1980, 1985, 1990, and 1995. Each table presents an age, race, and sex breakdown of the civilian noninstitutionalized population in the labor force. Data sources for historical and projected civilian noninstitutionalized population are described in Appendix B, Demography. Labor force participation rates for 1977 are drawn from the *Handbook of Labor Statistics*, 1978. Projections of labor force participation rates were judgmentally estimated using these main assumptions:

- Total female labor force participation would continue to rise.
- High participation rates of women in their 20s and 30s would be maintained as these age cohorts matured.
- Teenage labor force participation rates would rise as the 16- to 19-year-old population shrinks and employment opportunities improve.
- Male labor force participation rates in the 25- to 54-year-old cohorts will remain high.
- Labor force participation rates of persons over 55, especially women, will increase as inflation keeps people in the labor force longer.

Labor force participation rates were estimated for 1995 and the rates for 1980, 1985, and 1990 were interpolated using 1977 and 1995 rates. Participation rates for each year were multiplied by the civilian noninstitutionalized population for that year to derive the number of persons in the labor force.

1977 U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE
(1,000`S)

AGE	CIVILIAN NONINSTITUTIONAL POPULATION		CIVILIAN LABOR FORCE		CIVILIAN LABOR FORCE: WHITE		CIVILIAN LABOR FORCE: BLACKS AND OTHER RACES	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	4333	4192	2177	1765	1969	1614	208	151
18 TO 19	4068	4189	2942	2530	2588	2236	354	294
20 TO 21	3912	4108	3005	2640	2634	2301	371	339
22 TO 24	5726	5911	5107	4128	4435	3518	672	610
25 TO 29	8982	9175	8515	5770	7415	4882	1100	888
30 TO 34	7767	7917	7484	4640	6590	3914	894	726
35 TO 44	11827	12145	11302	7235	9860	6147	1442	1088
45 TO 54	11685	12100	10641	6753	9490	5881	1151	872
55 TO 64	9889	10962	7310	4494	6641	4009	669	485
65 +	9211	13636	1853	1115	1686	992	167	123
TOTAL	77400	84335	60336	41070	53308	35494	7028	5576

1980 U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE
(1,000'S)

AGE	CIVILIAN NONINSTITUTIONAL POPULATION		CIVILIAN LABOR FORCE		CIVILIAN LABOR FORCE: WHITE		CIVILIAN LABOR FORCE: BLACKS AND OTHER RACES	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	4202	4048	2104	1709	1886	1552	218	157
18 TO 19	4133	4185	2989	2568	2614	2257	375	311
20 TO 21	4033	4184	3092	2705	2695	2347	397	358
22 TO 24	6159	6272	5493	4418	4716	3742	777	676
25 TO 29	9676	9767	9161	6282	7915	5287	1246	995
30 TO 34	8793	8849	8469	5361	7418	4497	1051	864
35 TO 44	13007	13243	12429	8230	10864	7012	1565	1218
45 TO 54	11387	11708	10365	6779	9177	5849	1188	930
55 TO 64	10291	11383	7631	4981	6909	4420	722	561
65 +	9732	14516	1985	1233	1805	1097	180	136
TOTAL	81413	88155	63718	44266	55999	38060	7719	6206

1985 U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE
(1,000`S)

AGE	CIVILIAN NONINSTITUTIONAL POPULATION		CIVILIAN LABOR FORCE		CIVILIAN LABOR FORCE: WHITE		CIVILIAN LABOR FORCE: BLACKS AND OTHER RACES	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	3613	3486	1801	1478	1589	1323	212	155
18 TO 19	3520	3594	2540	2258	2181	1954	359	304
20 TO 21	3803	3946	2902	2576	2489	2216	413	360
22 TO 24	6200	6305	5530	4504	4682	3790	848	714
25 TO 29	10555	10638	9973	7093	8494	5926	1479	1167
30 TO 34	9878	9880	9501	6310	8183	5234	1318	1076
35 TO 44	15977	16110	15262	10703	13323	9122	1939	1581
45 TO 54	11284	11588	10268	7113	9012	6077	1256	1036
55 TO 64	10613	11631	7907	5627	7097	4929	810	698
65 +	10610	15989	2214	1445	2011	1284	203	161
TOTAL	86053	93167	67898	49107	59061	41855	8837	7252

1990 U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE
(1,000`S)

AGE	CIVILIAN NONINSTITUTIONAL POPULATION		CIVILIAN LABOR FORCE		CIVILIAN LABOR FORCE: WHITE		CIVILIAN LABOR FORCE: BLACKS AND OTHER RACES	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	3270	3142	1620	1335	1396	1173	224	162
18 TO 19	3456	3513	2490	2260	2103	1930	387	330
20 TO 21	3404	3557	2587	2344	2189	2000	398	344
22 TO 24	5271	5403	4702	3908	3899	3242	803	666
25 TO 29	10355	10426	9764	7192	8203	5965	1561	1227
30 TO 34	10742	10742	10321	7202	8771	5943	1550	1259
35 TO 44	18731	18761	17881	13269	15458	11220	2423	2049
45 TO 54	12728	13068	11586	8473	10152	7230	1434	1243
55 TO 64	10207	11066	7640	5869	6776	5052	864	817
65 +	11557	17508	2465	1676	2236	1486	229	190
TOTAL	89721	97186	71056	53528	61183	45241	9873	8287

1995 U.S. CIVILIAN NONINSTITUTIONAL LABOR FORCE
(1,000`S)

AGE	CIVILIAN NONINSTITUTIONAL POPULATION		CIVILIAN LABOR FORCE		CIVILIAN LABOR FORCE: WHITE		CIVILIAN LABOR FORCE: BLACKS AND OTHER RACES	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	3747	3587	1858	1540	1587	1344	271	196
18 TO 19	3250	3313	2341	2185	1952	1849	389	336
20 TO 21	3005	3149	2272	2089	1875	1756	397	333
22 TO 24	5067	5185	4520	3795	3663	3106	857	689
25 TO 29	9033	9138	8499	6510	7015	5332	1484	1178
30 TO 34	10533	10527	10109	7388	8476	6061	1633	1327
35 TO 44	20614	20621	19664	15466	16761	12938	2903	2528
45 TO 54	15550	15864	14160	10834	12394	9226	1766	1608
55 TO 64	10127	10964	7618	6326	6700	5378	918	948
65 +	12146	18499	2647	1870	2390	1649	257	221
TOTAL	93072	100847	73688	58003	62813	48639	10875	9364

1977 U.S. LABOR FORCE PARTICIPATION RATES
(PERCENT)

AGE	TOTAL LABOR FORCE PARTICIPATION		LABOR FORCE PARTICIPATION: WHITE RACE		LABOR FORCE PARTICIPATION: BLACKS AND OTHER RACES	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
16 TO 17	50.2	42.1	53.8	45.8	30.9	22.6
18 TO 19	72.3	60.4	74.9	63.3	57.7	44.7
20 TO 21	76.8	64.3	78.9	66.3	64.7	53.1
22 TO 24	89.2	69.8	90.0	70.1	84.2	68.3
25 TO 29	94.8	62.9	95.5	62.4	90.3	65.7
30 TO 34	96.4	58.6	97.2	57.2	90.6	67.5
35 TO 44	95.6	59.6	96.2	58.9	91.4	63.7
45 TO 54	91.1	55.8	92.2	55.4	82.7	58.7
55 TO 64	73.9	41.0	74.7	40.8	67.0	42.7
65 +	20.1	8.2	20.2	8.0	19.3	9.9
TOTAL	78.0	48.7	78.7	48.3	72.5	51.4

1980 U.S. LABOR FORCE PARTICIPATION RATES
(PERCENT)

AGE	TOTAL LABOR FORCE PARTICIPATION		LABOR FORCE PARTICIPATION: WHITE RACE		LABOR FORCE PARTICIPATION: BLACKS AND OTHER RACES	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
16 TO 17	50.1	42.2	53.7	46.0	31.7	23.3
18 TO 19	72.3	61.4	74.9	64.4	58.2	45.6
20 TO 21	76.7	64.7	78.8	66.9	65.0	53.0
22 TO 24	89.2	70.4	90.0	70.9	84.5	67.9
25 TO 29	94.7	64.3	95.4	64.0	90.2	66.1
30 TO 34	96.3	60.6	97.2	59.3	90.7	68.1
35 TO 44	95.6	62.1	96.2	61.6	91.5	65.6
45 TO 54	91.0	57.9	92.2	57.5	83.1	60.6
55 TO 64	74.2	43.8	74.9	43.5	67.5	45.9
65 +	20.4	8.5	20.5	8.3	19.4	10.1
TOTAL	78.3	50.2	79.0	49.8	73.3	52.7

1985 U.S. LABOR FORCE PARTICIPATION RATES
(PERCENT)

AGE	TOTAL LABOR FORCE PARTICIPATION		LABOR FORCE PARTICIPATION: WHITE RACE		LABOR FORCE PARTICIPATION: BLACKS AND OTHER RACES	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
16 TO 17	49.8	42.4	53.4	46.3	33.2	24.6
18 TO 19	72.2	62.8	74.9	66.3	58.9	47.1
20 TO 21	76.3	65.3	78.5	67.9	65.3	52.6
22 TO 24	89.2	71.4	90.0	72.3	85.0	67.2
25 TO 29	94.5	66.7	95.3	66.7	90.2	66.7
30 TO 34	96.2	63.9	97.1	62.9	90.8	69.1
35 TO 44	95.5	66.4	96.1	66.1	91.7	68.7
45 TO 54	91.0	61.4	92.1	61.0	83.7	63.7
55 TO 64	74.5	48.4	75.3	48.0	68.4	51.2
65 +	20.9	9.0	21.0	8.9	19.7	10.4
TOTAL	78.9	52.7	79.5	52.3	74.9	55.1

1990 U.S. LABOR FORCE PARTICIPATION RATES
(PERCENT)

AGE	TOTAL LABOR FORCE PARTICIPATION		LABOR FORCE PARTICIPATION: WHITE RACE		LABOR FORCE PARTICIPATION: BLACKS AND OTHER RACES	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
16 TO 17	49.5	42.5	53.2	46.7	34.6	25.8
18 TO 19	72.0	64.3	75.0	68.1	59.4	48.5
20 TO 21	76.0	65.9	78.3	69.0	65.6	52.3
22 TO 24	89.2	72.3	90.0	73.6	85.5	66.6
25 TO 29	94.3	69.0	95.1	69.3	90.1	67.3
30 TO 34	96.1	67.0	97.1	66.4	90.9	70.0
35 TO 44	95.5	70.7	96.1	70.5	91.8	71.8
45 TO 54	91.0	64.8	92.1	64.5	84.4	66.9
55 TO 64	74.9	53.0	75.6	52.5	69.2	56.6
65 +	21.3	9.6	21.5	9.4	19.8	10.7
TOTAL	79.2	55.1	79.8	54.7	75.8	57.1

1995 U.S. LABOR FORCE PARTICIPATION RATES
(PERCENT)

AGE	TOTAL LABOR FORCE PARTICIPATION		LABOR FORCE PARTICIPATION: WHITE RACE		LABOR FORCE PARTICIPATION: BLACKS AND OTHER RACES	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
16 TO 17	49.6	42.9	53.0	47.0	36.0	27.0
18 TO 19	72.0	66.0	75.0	70.0	60.0	50.1
20 TO 21	75.6	66.3	78.0	70.0	66.1	52.0
22 TO 24	89.2	73.2	90.0	75.0	86.0	66.0
25 TO 29	94.1	71.2	95.0	72.0	90.0	68.0
30 TO 34	96.0	70.2	97.0	70.0	91.0	71.0
35 TO 44	95.4	75.0	96.0	75.0	92.0	75.0
45 TO 54	91.1	68.3	92.0	68.0	85.0	70.0
55 TO 64	75.2	57.7	76.0	57.0	70.0	62.0
65 +	21.8	10.1	22.0	10.0	20.0	11.0
TOTAL	79.2	57.5	79.7	57.2	76.2	58.9

APPENDIX D

EDUCATION AND LABOR FORCE PARTICIPATION

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METHODOLOGY 100

PERCENT AND NUMBER OF PERSONS ARRANGED BY PARTICIPATION/NONPARTICIPATION IN SCHOOL AND THE LABOR FORCE. EACH SECTION CONTAINS FIGURES FOR 1977, 1980, 1985, 1990, AND 1995:

All Races (number of persons) 101

All Races (percent) 106

Whites (number of persons) 111

Whites (percent) 116

Blacks (number of persons) 121

Blacks (percent) 126

Other Races (number of persons) 131

Other Races (percent) 136

METHODOLOGY

This appendix combines participation in education and in the labor force to identify persons:

- in school and in the labor force
- not in school and in the labor force
- in school and not in the labor force
- not in school and not in the labor force

Numbers of persons enrolled and percentage participation rates are presented for 1977, 1980, 1985, 1990, and 1995 for total civilian noninstitutionalized population, whites, blacks, and other races. Education/labor force participation rates for 1977 were derived from figures published by the Census Bureau (Series P-20, No. 333). Projections of education/labor force participation rates in 1995 were made using the same assumptions underlying projections of labor force participation rates and educational enrollment discussed in Appendix B, Educational Enrollment, and Appendix C, Labor Force. Education/labor force participation rates for 1980, 1985, and 1990 were interpolated using 1977 and 1995 rates. Participation rates for each year were multiplied by the civilian noninstitutional population for each year to derive the number of persons in the labor force.

Because no 1977 data were published by the Census Bureau on the education/labor participation rate differential between blacks and other races, the same participation rate matrices were used for each of the two racial categories.

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	337	328	1839	1437	97	187	2060	2241
18 TO 19	1938	1678	1004	852	161	668	966	992
20 TO 21	2382	2068	624	571	183	846	725	622
22 TO 24	4413	3569	693	559	189	1548	430	236
25 TO 29	7609	5195	904	575	237	3141	230	265
30 TO 34	7042	4301	442	338	176	3089	106	189
35 +	30678	18928	441	689	11346	29013	146	212
TOTAL	54399	36067	5947	5021	12389	38492	4663	4757

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	327	311	1782	1399	93	186	2000	2153
18 TO 19	1969	1696	1019	871	158	645	986	973
20 TO 21	2443	2109	649	597	180	821	761	657
22 TO 24	4737	3804	756	614	197	1585	470	269
25 TO 29	8182	5641	979	641	259	3194	256	290
30 TO 34	7965	4981	503	382	212	3282	114	206
35 +	32158	20729	459	717	11646	29182	154	222
TOTAL	57781	39271	6147	5221	12745	38895	4741	4770

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	279	259	1532	1219	79	166	1722	1841
18 TO 19	1677	1482	862	777	131	523	851	813
20 TO 21	2281	1991	620	585	157	712	744	657
22 TO 24	4755	3850	776	655	186	1497	483	303
25 TO 29	8899	6344	1074	749	292	3216	291	329
30 TO 34	8930	5878	570	432	261	3353	116	218
35 +	35431	24410	503	781	12382	29885	169	241
TOTAL	62252	44214	5937	5198	13488	39352	4376	4402

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---		--NOT IN THE LABOR FORCE--					
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	251	228	1384	1107	71	156	1564	1651
18 TO 19	1646	1474	843	786	122	482	844	770
20 TO 21	2023	1796	565	547	128	587	687	626
22 TO 24	4029	3318	672	590	150	1205	420	290
25 TO 29	8702	6410	1061	782	294	2897	297	334
30 TO 34	9696	6726	625	476	309	3317	112	223
35 +	39256	28689	553	854	13228	30595	187	266
TOTAL	65603	48641	5703	5142	14302	39239	4111	4160

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	288	254	1595	1286	82	184	1784	1863
18 TO 19	1550	1416	791	769	108	425	802	701
20 TO 21	1766	1590	506	499	103	471	629	588
22 TO 24	3860	3200	660	595	134	1085	413	305
25 TO 29	7568	5783	931	726	264	2321	270	305
30 TO 34	9493	6917	617	470	327	2935	97	204
35 +	43500	33545	608	932	14122	31180	207	292
TOTAL	68025	52705	5708	5277	15140	38601	4202	4258

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7.8	7.8	42.4	34.3	2.2	4.5	47.5	53.4
18 TO 19	47.6	40.0	24.7	20.3	4.0	15.9	23.7	23.7
20 TO 21	60.9	50.4	15.9	13.9	4.7	20.6	18.5	15.1
22 TO 24	77.1	60.4	12.1	9.5	3.3	26.2	7.5	4.0
25 TO 29	84.7	56.6	10.1	6.3	2.6	34.2	2.6	2.9
30 TO 34	90.7	54.3	5.7	4.3	2.3	39.0	1.4	2.4
35 +	72.0	38.8	1.0	1.4	26.6	59.4	0.3	0.4
TOTAL	70.3	42.8	7.7	6.0	16.0	45.6	6.0	5.6

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7.8	7.7	42.4	34.6	2.2	4.6	47.6	53.2
18 TO 19	47.7	40.5	24.7	20.8	3.8	15.4	23.9	23.2
20 TO 21	60.6	50.4	16.1	14.3	4.5	19.6	18.9	15.7
22 TO 24	76.9	60.7	12.3	9.8	3.2	25.3	7.6	4.3
25 TO 29	84.6	57.8	10.1	6.6	2.7	32.7	2.6	3.0
30 TO 34	90.6	56.3	5.7	4.3	2.4	37.1	1.3	2.3
35 +	72.4	40.8	1.0	1.4	26.2	57.4	0.3	0.4
TOTAL	71.0	44.5	7.6	5.9	15.7	44.1	5.8	5.4

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7.7	7.4	42.4	35.0	2.2	4.8	47.7	52.8
18 TO 19	47.6	41.2	24.5	21.6	3.7	14.5	24.2	22.6
20 TO 21	60.0	50.5	16.3	14.8	4.1	18.0	19.6	16.7
22 TO 24	76.7	61.1	12.5	10.4	3.0	23.7	7.8	4.8
25 TO 29	84.3	59.6	10.2	7.0	2.8	30.2	2.8	3.1
30 TO 34	90.4	59.5	5.8	4.4	2.6	33.9	1.2	2.2
35 +	73.1	44.1	1.0	1.4	25.5	54.0	0.3	0.4
TOTAL	72.3	47.5	6.9	5.6	15.7	42.2	5.1	4.7

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7.7	7.3	42.3	35.2	2.2	5.0	47.8	52.5
18 TO 19	47.6	42.0	24.4	22.4	3.5	13.7	24.4	21.9
20 TO 21	59.4	50.5	16.6	15.4	3.8	16.5	20.2	17.6
22 TO 24	76.4	61.4	12.7	10.9	2.8	22.3	8.0	5.4
25 TO 29	84.0	61.5	10.2	7.5	2.8	27.8	2.9	3.2
30 TO 34	90.3	62.6	5.8	4.4	2.9	30.9	1.0	2.1
35 +	73.8	47.5	1.0	1.4	24.9	50.7	0.4	0.4
TOTAL	73.1	50.1	6.4	5.3	15.9	40.4	4.6	4.3

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: ALL RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7.7	7.1	42.5	35.9	2.2	5.1	47.6	51.9
18 TO 19	47.7	42.8	24.3	23.2	3.3	12.8	24.7	21.2
20 TO 21	58.8	50.5	16.8	15.9	3.4	15.0	20.9	18.7
22 TO 24	76.2	61.7	13.0	11.5	2.6	20.9	8.2	5.9
25 TO 29	83.8	63.3	10.3	7.9	2.9	25.4	3.0	3.3
30 TO 34	90.1	65.7	5.9	4.5	3.1	27.9	0.9	1.9
35 +	74.4	50.9	1.0	1.4	24.2	47.3	0.4	0.4
TOTAL	73.1	52.3	6.1	5.2	16.3	38.3	4.5	4.2

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	296	296	1672	1318	88	148	1603	1762
18 TO 19	1700	1473	888	763	107	526	760	770
20 TO 21	2060	1787	574	514	124	680	581	489
22 TO 24	3834	3041	601	477	138	1315	355	186
25 TO 29	6630	4381	784	501	155	2754	194	188
30 TO 34	6217	3633	373	281	108	2778	81	151
35 +	27313	16444	378	606	9973	26051	113	173
TOTAL	48050	31055	5270	4460	10693	34252	3687	3719

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	285	276	1606	1276	84	149	1540	1673
18 TO 19	1718	1481	896	775	106	502	769	745
20 TO 21	2103	1812	592	536	122	651	605	509
22 TO 24	4071	3220	645	521	142	1325	382	209
25 TO 29	7073	4729	842	558	167	2770	213	204
30 TO 34	6993	4182	425	316	130	2921	87	162
35 +	28551	17955	393	628	10220	26125	118	180
TOTAL	50794	33655	5399	4610	10971	34443	3714	3682

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	241	223	1359	1100	71	136	1303	1396
18 TO 19	1436	1275	745	679	86	393	643	601
20 TO 21	1935	1693	554	523	106	549	576	496
22 TO 24	4033	3238	649	552	134	1222	386	231
25 TO 29	7582	5274	912	652	182	2734	239	229
30 TO 34	7704	4878	478	356	157	2920	86	168
35 +	31273	21010	427	679	10824	26602	128	194
TOTAL	54204	37591	5124	4541	11560	34556	3361	3315

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	212	188	1199	986	63	129	1149	1212
18 TO 19	1386	1253	717	677	81	351	621	552
20 TO 21	1695	1512	493	488	87	438	521	461
22 TO 24	3352	2751	547	491	106	947	328	214
25 TO 29	7313	5284	890	681	179	2407	240	231
30 TO 34	8248	5550	523	393	184	2830	82	171
35 +	34376	24486	465	735	11498	27040	139	210
TOTAL	56582	41024	4834	4451	12198	34142	3080	3051

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	243	203	1369	1141	72	157	1312	1359
18 TO 19	1288	1194	664	655	73	301	578	491
20 TO 21	1447	1315	428	442	70	336	459	416
22 TO 24	3142	2617	521	489	94	816	313	219
25 TO 29	6247	4702	768	629	155	1866	214	207
30 TO 34	7960	5671	516	390	192	2442	70	156
35 +	37755	28373	506	794	12197	27351	152	227
TOTAL	58082	44075	4772	4540	12853	33269	3098	3075

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8.1	8.4	45.7	37.4	2.4	4.2	43.8	50.0
18 TO 19	49.2	41.7	25.7	21.6	3.1	14.9	22.0	21.8
20 TO 21	61.7	51.5	17.2	14.8	3.7	19.6	17.4	14.1
22 TO 24	77.8	60.6	12.2	9.5	2.8	26.2	7.2	3.7
25 TO 29	85.4	56.0	10.1	6.4	2.0	35.2	2.5	2.4
30 TO 34	91.7	53.1	5.5	4.1	1.6	40.6	1.2	2.2
35 +	72.3	38.0	1.0	1.4	26.4	60.2	0.3	0.4
TOTAL	71.0	42.3	7.8	6.1	15.8	46.6	5.4	5.1

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8.1	8.2	45.7	37.8	2.4	4.4	43.8	49.6
18 TO 19	49.2	42.3	25.7	22.1	3.1	14.3	22.0	21.3
20 TO 21	61.4	51.6	17.3	15.3	3.6	18.6	17.7	14.5
22 TO 24	77.7	61.0	12.3	9.9	2.7	25.1	7.3	4.0
25 TO 29	85.3	57.2	10.1	6.7	2.0	33.5	2.6	2.5
30 TO 34	91.6	55.2	5.6	4.2	1.7	38.5	1.1	2.1
35 +	72.7	40.0	1.0	1.4	26.0	58.2	0.3	0.4
TOTAL	71.7	44.1	7.6	6.0	15.5	45.1	5.2	4.8

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(PERCENT)

AGE	IN THE LABOR FORCE				NOT IN THE LABOR FORCE			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8.1	7.8	45.7	38.5	2.4	4.8	43.8	48.9
18 TO 19	49.3	43.3	25.6	23.0	3.0	13.3	22.1	20.4
20 TO 21	61.0	51.9	17.5	16.0	3.3	16.8	18.2	15.2
22 TO 24	77.5	61.8	12.5	10.5	2.6	23.3	7.4	4.4
25 TO 29	85.0	59.3	10.2	7.3	2.0	30.8	2.7	2.6
30 TO 34	91.4	58.6	5.7	4.3	1.9	35.1	1.0	2.0
35 +	73.3	43.3	1.0	1.4	25.4	54.9	0.3	0.4
TOTAL	73.0	47.0	6.9	5.7	15.6	43.2	4.5	4.1

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8.1	7.5	45.7	39.2	2.4	5.1	43.8	48.2
18 TO 19	49.4	44.2	25.6	23.9	2.9	12.4	22.1	19.5
20 TO 21	60.6	52.1	17.6	16.8	3.1	15.1	18.6	15.9
22 TO 24	77.4	62.5	12.6	11.2	2.4	21.5	7.6	4.9
25 TO 29	84.8	61.4	10.3	7.9	2.1	28.0	2.8	2.7
30 TO 34	91.3	62.1	5.8	4.4	2.0	31.6	0.9	1.9
35 +	74.0	46.7	1.0	1.4	24.7	51.5	0.3	0.4
TOTAL	73.8	49.6	6.3	5.4	15.9	41.3	4.0	3.7

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: WHITES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8.1	7.1	45.7	39.9	2.4	5.5	43.8	47.5
18 TO 19	49.5	45.2	25.5	24.8	2.8	11.4	22.2	18.6
20 TO 21	60.2	52.4	17.8	17.6	2.9	13.4	19.1	16.6
22 TO 24	77.2	63.2	12.8	11.8	2.3	19.7	7.7	5.3
25 TO 29	84.6	63.5	10.4	8.5	2.1	25.2	2.9	2.8
30 TO 34	91.1	65.5	5.9	4.5	2.2	28.2	0.8	1.8
35 +	74.6	50.0	1.0	1.4	24.1	48.2	0.3	0.4
TOTAL	73.7	51.9	6.1	5.3	16.3	39.2	3.9	3.6

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	37	29	150	107	8	35	410	430
18 TO 19	213	184	104	80	48	127	184	199
20 TO 21	286	251	44	51	52	148	128	119
22 TO 24	515	465	82	72	45	205	67	44
25 TO 29	862	692	106	63	72	329	32	65
30 TO 34	708	559	59	48	58	260	21	32
35 +	2929	2181	55	73	1195	2601	29	34
TOTAL	5550	4361	600	494	1478	3705	871	923

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	37	31	156	109	8	33	407	426
18 TO 19	221	190	108	85	46	127	191	202
20 TO 21	300	262	50	54	51	150	138	131
22 TO 24	584	508	97	81	48	226	77	52
25 TO 29	964	776	119	71	80	361	37	73
30 TO 34	822	657	66	54	69	297	23	36
35 +	3102	2398	57	77	1226	2642	31	36
TOTAL	6030	4822	653	531	1528	3836	904	956

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	33	31	149	102	7	26	360	383
18 TO 19	205	178	100	84	38	112	177	182
20 TO 21	297	260	57	54	44	142	144	140
22 TO 24	620	525	109	88	45	236	83	62
25 TO 29	1129	904	139	82	94	407	45	84
30 TO 34	1035	827	78	63	88	358	25	41
35 +	3525	2868	64	86	1321	2769	35	40
TOTAL	6844	5593	696	559	1637	4050	869	932

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	32	33	152	100	7	22	342	362
18 TO 19	214	184	104	91	34	109	184	181
20 TO 21	270	239	59	50	34	125	137	139
22 TO 24	559	471	103	82	36	214	76	63
25 TO 29	1168	937	144	84	97	408	48	86
30 TO 34	1212	967	85	68	105	400	25	43
35 +	4095	3479	74	99	1452	2943	40	46
TOTAL	7550	6310	721	574	1765	4221	852	920

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	37	41	184	118	8	22	384	410
18 TO 19	207	178	101	92	28	100	177	169
20 TO 21	249	221	61	46	26	109	133	138
22 TO 24	568	466	110	85	32	215	79	69
25 TO 29	1067	869	132	78	88	366	45	79
30 TO 34	1261	1013	83	65	111	401	22	39
35 +	4783	4224	85	113	1603	3127	46	53
TOTAL	8172	7012	756	597	1896	4340	886	957

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	4.8	24.8	17.8	1.3	5.8	67.8	71.6
18 TO 19	38.8	31.2	18.9	13.5	8.7	21.5	33.6	33.8
20 TO 21	56.1	44.1	8.6	9.0	10.2	26.0	25.1	20.9
22 TO 24	72.6	59.1	11.6	9.2	6.3	26.1	9.5	5.6
25 TO 29	80.4	60.2	9.9	5.5	6.7	28.6	3.0	5.7
30 TO 34	83.6	62.2	7.0	5.3	6.9	28.9	2.5	3.6
35 +	69.6	44.6	1.3	1.5	28.4	53.2	0.7	0.7
TOTAL	65.3	46.0	7.1	5.2	17.4	39.1	10.2	9.7

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	5.2	25.7	18.2	1.3	5.4	66.9	71.2
18 TO 19	39.1	31.5	19.0	14.1	8.1	21.0	33.8	33.4
20 TO 21	55.6	43.9	9.3	9.0	9.4	25.2	25.6	21.9
22 TO 24	72.5	58.6	12.0	9.4	5.9	26.0	9.6	6.1
25 TO 29	80.3	60.6	9.9	5.5	6.7	28.2	3.1	5.7
30 TO 34	83.9	62.9	6.8	5.1	7.0	28.5	2.3	3.4
35 +	70.2	46.5	1.3	1.5	27.8	51.3	0.7	0.7
TOTAL	66.2	47.5	7.2	5.2	16.8	37.8	9.9	9.4

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	5.8	27.1	18.8	1.3	4.9	65.5	70.6
18 TO 19	39.5	32.0	19.2	15.1	7.2	20.2	34.0	32.7
20 TO 21	54.8	43.6	10.6	9.0	8.1	23.9	26.6	23.5
22 TO 24	72.3	57.6	12.7	9.6	5.3	25.9	9.7	6.8
25 TO 29	80.3	61.2	9.9	5.5	6.7	27.6	3.2	5.7
30 TO 34	84.4	64.2	6.4	4.9	7.2	27.8	2.1	3.2
35 +	71.3	49.8	1.3	1.5	26.7	48.0	0.7	0.7
TOTAL	68.1	50.2	6.9	5.0	16.3	36.4	8.7	8.4

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.0	6.4	28.6	19.4	1.3	4.3	64.1	69.9
18 TO 19	40.0	32.6	19.4	16.0	6.3	19.3	34.3	32.1
20 TO 21	53.9	43.3	11.8	9.0	6.8	22.5	27.5	25.2
22 TO 24	72.2	56.7	13.3	9.9	4.6	25.8	9.9	7.6
25 TO 29	80.2	61.8	9.9	5.6	6.6	26.9	3.3	5.7
30 TO 34	84.9	65.4	6.0	4.6	7.3	27.1	1.8	2.9
35 +	72.3	53.0	1.3	1.5	25.7	44.8	0.7	0.7
TOTAL	69.3	52.5	6.6	4.8	16.2	35.1	7.8	7.7

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: BLACKS
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.0	7.0	30.0	20.0	1.3	3.7	62.7	69.3
18 TO 19	40.4	33.1	19.6	17.0	5.4	18.5	34.6	31.4
20 TO 21	53.1	43.0	13.0	9.0	5.5	21.2	28.4	26.8
22 TO 24	72.0	55.8	14.0	10.2	4.0	25.7	10.0	8.3
25 TO 29	80.1	62.4	9.9	5.6	6.6	26.3	3.4	5.7
30 TO 34	85.4	66.7	5.6	4.3	7.5	26.4	1.5	2.6
35 +	73.4	56.2	1.3	1.5	24.6	41.6	0.7	0.7
TOTAL	69.8	54.3	6.5	4.6	16.2	33.6	7.6	7.4

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	4	3	17	12	1	4	47	49
18 TO 19	25	21	12	9	6	15	22	23
20 TO 21	36	30	6	6	7	18	16	14
22 TO 24	64	63	10	10	6	28	8	6
25 TO 29	117	122	14	11	10	58	4	12
30 TO 34	117	109	10	9	10	51	4	6
35 +	436	303	8	10	178	361	4	5
TOTAL	799	651	77	67	218	535	105	115

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	5	4	20	14	1	4	53	54
18 TO 19	30	25	15	11	6	16	26	26
20 TO 21	40	35	7	7	7	20	18	17
22 TO 24	82	76	14	12	7	34	11	8
25 TO 29	145	136	18	12	12	63	6	13
30 TO 34	150	142	12	12	13	64	4	8
35 +	505	376	9	12	200	415	5	6
TOTAL	957	794	95	80	246	616	123	132

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	5	5	24	17	1	4	59	62
18 TO 19	36	29	17	14	7	18	31	30
20 TO 21	49	38	9	8	7	21	24	21
22 TO 24	102	87	18	15	7	39	14	10
25 TO 29	188	166	23	15	16	75	7	16
30 TO 34	191	173	14	13	16	75	5	9
35 +	633	532	12	16	237	514	6	7
TOTAL	1204	1030	117	98	291	746	146	155

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	7	7	33	21	1	5	73	77
18 TO 19	46	37	22	18	7	22	39	37
20 TO 21	58	45	13	9	7	24	29	26
22 TO 24	118	96	22	17	8	44	16	13
25 TO 29	221	189	27	17	18	82	9	17
30 TO 34	236	209	17	15	20	87	5	9
35 +	785	724	14	20	278	612	8	10
TOTAL	1471	1307	148	117	339	876	179	189

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(1,000'S)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	8	10	42	27	2	5	88	94
18 TO 19	55	44	26	22	7	24	47	41
20 TO 21	70	54	17	11	7	26	37	34
22 TO 24	150	117	29	21	8	54	21	17
25 TO 29	254	212	31	19	21	89	11	19
30 TO 34	272	233	18	15	24	92	5	9
35 +	962	948	17	25	322	702	9	12
TOTAL	1771	1618	180	140	391	992	218	226

1977 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	4.8	24.8	17.8	1.3	5.8	67.8	71.6
18 TO 19	38.8	31.2	18.9	13.5	8.7	21.5	33.6	33.8
20 TO 21	56.1	44.1	8.6	9.0	10.2	26.0	25.1	20.9
22 TO 24	72.6	59.1	11.6	9.2	6.3	26.1	9.5	5.6
25 TO 29	80.4	60.2	9.9	5.5	6.7	28.6	3.0	5.7
30 TO 34	83.6	62.2	7.0	5.3	6.9	28.9	2.5	3.6
35 +	69.6	44.6	1.3	1.5	28.4	53.2	0.7	0.7
TOTAL	66.6	47.6	6.4	4.9	18.2	39.1	8.8	8.4

1980 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	5.2	25.7	18.2	1.3	5.4	66.9	71.2
18 TO 19	39.1	31.5	19.0	14.1	8.1	21.0	33.8	33.4
20 TO 21	55.6	43.9	9.3	9.0	9.4	25.2	25.6	21.9
22 TO 24	72.5	58.6	12.0	9.4	5.9	26.0	9.6	6.1
25 TO 29	80.3	60.6	9.9	5.5	6.7	28.2	3.1	5.7
30 TO 34	83.9	62.9	6.8	5.1	7.0	28.5	2.3	3.4
35 +	70.2	46.5	1.3	1.5	27.8	51.3	0.7	0.7
TOTAL	67.3	49.0	6.7	4.9	17.3	38.0	8.7	8.1

1985 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.1	5.8	27.1	18.8	1.3	4.9	65.5	70.6
18 TO 19	39.5	32.0	19.2	15.1	7.2	20.2	34.0	32.7
20 TO 21	54.8	43.6	10.6	9.0	8.1	23.9	26.6	23.5
22 TO 24	72.3	57.6	12.7	9.6	5.3	25.9	9.7	6.8
25 TO 29	80.3	61.2	9.9	5.5	6.7	27.6	3.2	5.7
30 TO 34	84.4	64.2	6.4	4.9	7.2	27.8	2.1	3.2
35 +	71.3	49.8	1.3	1.5	26.7	48.0	0.7	0.7
TOTAL	68.5	50.8	6.7	4.8	16.6	36.8	8.3	7.6

1990 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(PERCENT)

AGE	----IN THE LABOR FORCE---				--NOT IN THE LABOR FORCE--			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.0	6.4	28.6	19.4	1.3	4.3	64.1	69.9
18 TO 19	40.0	32.6	19.4	16.0	6.3	19.3	34.3	32.1
20 TO 21	53.9	43.3	11.8	9.0	6.8	22.5	27.5	25.2
22 TO 24	72.2	56.7	13.3	9.9	4.6	25.8	9.9	7.6
25 TO 29	80.2	61.8	9.9	5.6	6.6	26.9	3.3	5.7
30 TO 34	84.9	65.4	6.0	4.6	7.3	27.1	1.8	2.9
35 +	72.3	53.0	1.3	1.5	25.7	44.8	0.7	0.7
TOTAL	68.8	52.5	6.9	4.7	15.9	35.2	8.4	7.6

1995 U.S. EDUCATION AND LABOR FORCE PARTICIPATION: OTHER RACES
(PERCENT)

AGE	IN THE LABOR FORCE				NOT IN THE LABOR FORCE			
	NOT IN SCHOOL		IN SCHOOL		NOT IN SCHOOL		IN SCHOOL	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
16 TO 17	6.0	7.0	30.0	20.0	1.3	3.7	62.7	69.3
18 TO 19	40.4	33.1	19.6	17.0	5.4	18.5	34.6	31.4
20 TO 21	53.1	43.0	13.0	9.0	5.5	21.2	28.4	26.8
22 TO 24	72.0	55.8	14.0	10.2	4.0	25.7	10.0	8.3
25 TO 29	80.1	62.4	9.9	5.6	6.6	26.3	3.4	5.7
30 TO 34	85.4	66.7	5.6	4.3	7.5	26.4	1.5	2.6
35 +	73.4	56.2	1.3	1.5	24.6	41.6	0.7	0.7
TOTAL	69.2	54.4	7.0	4.7	15.3	33.3	8.5	7.6